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# ORIGINES KALENDARIÆ HELLENICÆ:

OR,

## THE HISTORY

OF

## THE PRIMITIVE CALENDAR

## AMONG THE GREEKS,

BEFORE AND AFTER THE LEGISLATION OF SOLON.

BY

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# ORIGINES KALENDARIÆ HELLENICÆ.

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ORIGINES

# ORIGINES KALENDARIÆ HELLENICÆ.

## DISSERTATION III.

*On the Metonic Correction.*

## CHAPTER IV.

*On the date of the adoption of the Metonic Correction into public use at Athens.*

### SECTION I.

THERE has never been any difference of opinion respecting the *date* of the Metonic correction, B. C. 432; and it seems to have been taken for granted that the date of its publication was likewise the date of its reception. That this conclusion is mistaken has been proved by the testimony of Thucydides[x] to the fact, that both the old calendar and the old beginning of the year were still unchanged in the first year of the Peloponnesian war. How long after this that calendar continued to be used, or what was the precise interval between the first publication of the correction of Meton and its actual reception at Athens; *this* is the question which remains to be discussed.

### SECTION II.—*On the investigation of the historical date of the adoption backwards.*

One mode of arriving at the truth upon it, and probably as satisfactory as any, might be to begin with assuming a point of time sufficiently later than the date of the Correction to render it morally certain that by that time it must have been received into public use; and to start from that epoch, and investigate the notices of time, which happen to be on record, backwards, in order to discover from them, if possible, at what point of the natural year the civil year was then beginning; or what light they might throw on its beginning for the time being *per se*: and how far back they admitted of being traced; and *when* and *where*, in the course of the intermediate period, they first intimated any thing definite. For if one such point could be ascertained, *that*, it might be presumed, must have been the date of the transition of the old calendar into the new; and of every thing which accompanied it. But this investigation would require the consideration of too many particular facts and dates, and through too many years in succession; and if we avail ourselves of it at all, it must be only generally, and with a view to illustrate the principle of the process by its application in one or two instances.

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[x] Diss. i. ch. v. sect. ii. vol. i. p. 130 sqq.

The first cycle of the correction came to an end Skirrhophorion 30, B. C. 413. No one perhaps will be inclined to doubt whether it had been adopted at Athens before that time. The Aves of Aristophanes, according to the second and third arguments, were acted the year before, at the Dionysia ἐν ἄστει, about Elaphebolion 12, in the 18th year of the cycle; and the introduction of Meton in that play, in order to exhibit him in a ridiculous light, was probably owing to the notoriety which he himself had acquired by that time, and to the reception of his calendar into public use: of which, as it appears from his Nubes, Aristophanes for one did not approve. There can be little question however that each of these things, both the change of style and the change in the beginning of the official year, was already matter of fact, by B. C. 410—the archontic year of Glaukippus. A marble at least is still in existence, belonging to this year, called the Choiseul marble, which we had occasion to refer to before[y]. In this the order and series of the prytanies through the whole of the year are recorded; and though it specifies no actual days of the months, it has a variety of notices, connected with such and such days of particular prytanies, which render it demonstratively certain that the order of succession among them began on the first of Hecatombæon.

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[y] Vol. i. 6 *n*. 78. 86 *n*.

The same thing indeed respecting this particular year (that it must have begun in Hecatombæon) might be proved by means of the xxist oration of Lysias; the speaker in which is anonymous, but the title is Ἀπολογία δωροδοκίας. This speaker began with referring to his Δοκιμασία ἐπὶ Θεοπόμπου ἄρχοντος[z] (B. C. 411–410); and then went on to enumerate his various λειτουργίαι through that and some of the following years. Of the first of these he observed: Ἐγὼ γὰρ ἐδοκιμάσθην μὲν ἐπὶ Θεοπόμπου ἄρχοντος, καταστὰς δὲ χορηγὸς τραγῳδοῖς ἀνήλωσα τριάκοντα μνᾶς, καὶ τρίτῳ μηνὶ Θαργηλίοις νικήσας ἀνδρικῷ χορῷ δισχιλίας δραχμάς. The Dionysia ἐν ἄστει must have been intended in this allusion; Elaphebolion 12, B. C. 410, in the *third* month before the Thargelia, the same year, Thargelion 6, May 21[a].

He proceeded: Ἐπὶ δὲ Γλαυκίππου ἄρχοντος, εἰς πυρριχιστὰς Παναθηναίοις τοῖς μεγάλοις ὀκτακοσίας (ἀνήλωσα·) ἔτι δ' ἀνδράσι χορηγῶν εἰς Διονύσια ἐπὶ τοῦ αὐτοῦ ἄρχοντος, ἐνίκησα, καὶ ἀνήλωσα σὺν τῇ τοῦ τρίποδος ἀναθέσει πεντακισχιλίας δραχμάς.

Again: Καὶ ἐπὶ Διοκλέους Παναθηναίοις τοῖς μικροῖς κυκλικῷ χορῷ τριακοσίας (ἀνήλωσα)[b]. We have thus *three* archons mentioned by name, Theopompus, Glaukippus, Diocles; whom the tables shew to have represented B. C. 411, B. C. 410, and B. C. 409 respectively. It appears too that the Panathenæa Majora in the *second* of these years were later than the Dionysia and the Thargelia in the *first*, yet earlier than the Dionysia in the *second*. If so, the year of Glaukippus must have begun between the Thargelia of Theopompus' year, and the Panathenæa Majora of his own*. The date of the Thargelia was Thargelion 6; that of the Panathenæa Majora was Hecatombæon 28. The year of Glaukippus then must have begun between Thargelion 6 and Hecatombæon 28, B.C. 410. If so, on the *first* of Hecatombæon (which that year was July 11): as the Choiseul marble implies that it did.

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* That the archontic year of Glaukippus (B. C. 410–409) was a Panathenaic year, appears not only from this testimony of Lysias, but also from the Choiseul marble; and would follow from the fact of its standing just 156 years from the epoch of the Panathenæa Majora, B. C. 566. We hope to give an account of this festival in the second part of the present work. The Panathenæa Minora alluded to, both here (§ 3), in the year of Diocles,

[z] § 2.

[a] Cf. Antiphon, vi. § 11.

[b] xxi. § 2, 3.

The Metonic calendar therefore was undoubtedly in use at the beginning of the official year of Glaukippus, Period i. 23, Cycle ii. 4, B. C. 410 *. There is an earlier testimony to the same effect, in one of the orations of Antiphon the Rhamnusian; whose death is known to have arisen out of the overthrow of the government of the 400 at Athens, in the establishment of which he had been a principal instrument. This change was brought about in B. C. 411[c]; and it lasted only four months[d]: the date of the change having been some time in the year of Callias, that of the revolution, by which it was again overthrown some time in that of Theopompus. The death of Antiphon was the effect of this counterrevolution; and Lysias[e] ascribes it to the influence of Theramenes. Antiphon himself having thus been put to death soon after midsummer, B. C. 411; no oration of his could have been later than midsummer, B. C. 411.

Now the *sixth* of his orations was written in behalf of some person, not mentioned in it by name, who was accused of having caused the death of a certain χορευτὴς, or young choral singer, by compelling him to drink poison: and the fact, thus laid to his charge, it appears[f], arose out of his having been appointed χορηγὸς εἰς Θαργήλια, soon after he

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B. C. 409–408, and again (§ 5), in that of Euclides, B. C. 403–402, were annual; and might be alluded to in any year. From the terms of this *second* allusion however, Ἐπὶ δὲ Εὐκλείδου ἄρχοντος κωμῳδοῖς χορηγῶν Κηφισοδότῳ ἐνίκων .... καὶ Παναθηναίοις τοῖς μικροῖς ἐχορήγουν πυρριχισταῖς κ᾽, τ. λ., it might be inferred that they were later in any archontic year than the latest of the Dionysia: and these of course would be the Dionysia ἐν ἄστει, about Elaphebolion 12, every year. In fact, the stated date of the Panathenæa Minora at this time was the 21st of Thargelion.

* Cf. supra, p. 61 *n.* in reference to the succession of Prytanies through the first three months of the year of Diocles, B. C. 409.

[c] Thucydides, viii. 67, 68.

[d] Harpocration, τετρακόσιοι: Photius and Suidas, τετρακόσιοι.

[e] xii. 68. Cf. Thucydides, viii. 68: also Plutarch, X Oratores, i. Antiphon.

[f] vi. § 11.

had served the same office *εἰς Διονύσια*: i. e. the Dionysia *ἐν ἄστει* (in Elaphebolion), not long before. The context of the sections, which follow, demonstrates that this *λῆξις* of his *εἰς Θαργήλια* must have borne date some time in Munychion; not later than the 27th of that month.

For, on comparing these sections together[g], it will be seen that the death, laid to the charge of the speaker, must have so fallen out, that the youth in question died two days before he was buried; and the accusation followed so soon upon it, that it must have been brought forward by the accuser (who is called Philocrates) on the day of the burial: and yet the day on which it was actually brought against the speaker was the day before the *ἔνη καὶ νέα*. On this principle, the charge was made on the 29th of the month, the young man was buried the same day; and his death, two days before, must have happened on the 27th. And these inferences are confirmed by another allusion to the same course of things[h], from which it appears that the accusation was actually brought against the speaker just before the end of the month, and that month Munychion.

This subsequent allusion is important. It is as follows[h]: *Ἔδει μὲν γὰρ τὸν βασιλέα, ἐπειδὴ ἀπέγραψατο*[i], *τρεῖς προδικασίας ποιῆσαι ἐν τρισὶ μησὶ, τὴν δίκην δ' εἰσάγειν τετάρτῳ μηνὶ, ὥσπερ νυνί. τῆς δ' ἀρχῆς αὐτῷ λοιποὶ δύο μῆνες ἦσαν, Θαργηλιὼν καὶ Σκιρροφοριὼν, καὶ οὔτ' εἰσάγειν δήπου οἷός τ' ἦν ἐφ' ἑαυτοῦ οὔτε παραδοῦναι φόνου ἔξεστιν, οὐδὲ παρέδωκεν οὐδεὶς πώποτε βασιλεὺς ἐν τῇ γῇ ταύτῃ. ἥντινα οὖν μήτε εἰσάγειν μήτε παραδοῦναι ἐξῆν αὐτῷ, οὐδ' ἀπογράφεσθαι ἠξίου παρὰ τοὺς ἡμετέρους νόμους.*

The meaning of this is, that the archon basileus (to whose jurisdiction, as that of a kind of coroner, or president of a court of inquest, cases of suspicious death, involving possibly the crime of murder, belonged), having only two months of his term of office still remaining when this accusation was brought before him, had refused to have it entered in his court; because, under the circumstances of the case, he could neither expect to bring it to an issue before himself (*ἐφ' ἑαυτοῦ*), nor yet could legally hand it over, as a question begun but not decided, to his successor. The law, in such cases, required three *προδικασίαι*[k], or preliminary hearings of the case, like so many coroner's inquests; one in each of three successive months from the entry of the action, and in the fourth month, before the same judge, the final joining of the issue: all which, it appears, had actually been done even in the present instance, under the new archon; but when the charge was first brought forward, only two months before his predecessor was to go out of office, could not possibly be done; and therefore the archon for the time being had very properly refused to allow the action even to be entered in his court.

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[g] § 21. 23. 29. 34. 37.

[h] § 42.

[i] Cf. § 37, 38.

We have thus clear proof both that all the proceedings, which arose out of this charge began on the last day but one of Munychion[l]: and also, that in two months more (Thargelion and Skirrhophorion) the official year of the archon rex for the time being would expire: consequently, that the last month of *this* year at *this* time must have been Skirrhophorion, and the *first* must have been Hecatombæon.

This is further illustrated by what follows[m]: Ἐπειδὴ γὰρ *οὑτοσὶ ὁ βασιλεὺς* (i.e. the successor in office of the former archon, the archon before whom the trial was now going on, in the *fourth* month after proceedings were first instituted in his court[n]) *εἰσῆλθεν, ἐξὸν αὐτοῖς ἀπὸ τῆς πρώτης ἡμέρας ἀρξαμένοις τοῦ Ἑκατομβαιῶνος μηνὸς τριάκονθ' ἡμέραις συνεχῶς, τούτων ᾗτινι ἐβούλοντο ἀπογράφεσθαι, ἀπεγράφοντο οὐδεμιᾷ· καὶ αὖθις τοῦ Μεταγειτνιῶνος μηνὸς, ἀπὸ τῆς πρώτης ἡμέρας ἀρξαμένοις, ἐξὸν αὐτοῖς ἀπογράφεσθαι ᾗτινι ἐβούλοντο, οὐδ' αὖ ἐνταῦθα ἀπεγράψαντο, ἀλλὰ παρῆσαν καὶ τούτου τοῦ μηνὸς εἴκοσιν ἡμεράς. ὥστε αἱ σύμπασαι ἡμέραι ἐγένοντο αὐτοῖς πλέον ἢ πεντήκοντα ἐπὶ τούτου τοῦ βασιλέως, ἐν αἷς ἐξὸν αὐτοῖς ἀπογράψασθαι οὐκ ἀπεγράψαντο. καὶ οἱ μὲν ἄλλοι ἅπαντες, ὅσοις ἐπὶ τοῦ αὐτοῦ βασιλέως* (the former archon rex) *ὁ χρόνος μὴ ἐνεχώρει*—here there is an hiatus in the text, so that what actually followed cannot now be known, though it might be conjectured.

Not only is the order of the months in the official year, from Munychion to Metageitnion, ascertained by these different statements, but the first of Hecatombæon is clearly recognised as the first day of this year itself, as the day on which a fresh archon had come in. It may be collected from the last of them too that, whatsoever the year in which these proceedings were going on, Hecatombæon must have been a *full* month, and Metageitnion the next month must have been *cavus* up to the 20th or 21st, and *plenus* for the rest of its time. For it was asserted on the one hand, that not only the whole of Hecatombæon (and that whole 30 days) but *twenty* days in Metageitnion also had been allowed to elapse before the action was entered under the new archon; and yet, on the other hand, that more than 50 days had been suffered to pass in both months together before such a step was taken. We do not see how these statements can be reconciled together, except by supposing that the action was actually entered on the 22nd of Metageitnion; and yet that some day in that month, before the 22nd, had been exemtile: in which case, while the real number of days, from the beginning of the new official year until then, must have been 50, by the calendar it would appear to have been more than 50, and might be represented accordingly.

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[k] Suidas. Προδικασία· οἱ τὰς ἐπὶ φόνῳ δίκας ἐγκαλούμενοι ἐν πρυτανείῳ πρὸ τῆς δίκης διατελοῦσιν ἐπὶ τρεῖς μῆνας· ἐν οἷς ἐξ ἑκατέρου μέρους λόγοι προάγονται. τοῦτό φασι προδικασίαν.

[l] vi. 37. 21. 23. 29. 34.

[m] § 44.

[n] § 42.

On this supposition, the year in which these proceedings were going on must have been some one in which Hecatombæon was *plenus*, and Metageitnion *cavus*, but so that the exemtile day in that month fell out before the 22nd; that is, as our scheme of exemtile days[o] shews, either on the 3rd, or on the 6th, or on the 9th, or on the 12th, or on the 15th, or on the 18th, or on the 21st of the month. Supposing the first 8 years of the cycle set aside, the inspection of the calendar will shew that the rest too would be excluded, down to the xiiith, B. C. 420; that being the first, after the eighth, which would answer to the conditions of the case. The xivth again would be excluded, because Hecatombæon that year was *cavus*. The xvth might answer as well as the xiiith. The xvith would be excluded, because in that the exemtile day in Metageitnion was the 27th. The xviiith would be excluded, because both Hecatombæon and Metageitnion in that were *pleni*, and the xixth, because in that Hecatombæon was *cavus*. But the xviith might answer, as well as the xiiith, or the xvth.

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[o] Vol. i. 197.

There were *three* years consequently, in the first cycle of Meton, the xiiith, B. C. 420, the xvth, B. C. 418, and the xviith, B. C. 416, in any of which the oration in question might have been delivered, and the circumstances therein supposed would have held good. The first would imply that the calendar was already Metonic B. C. 420; the third that it was so B. C. 416; and of the year before any of these three years too, it may be observed, there would have been a 27th of Munychion, as there was in the year before this speech was delivered. Nearer than this to the actual date of the oration it is perhaps not possible at present to approach. Antiphon was certainly still alive in the first two years of the second cycle, B. C. 413 and B. C. 412; but in the former both Hecatombæon and Metageitnion must have been *pleni*, and in the latter Hecatombæon must have been *cavus*, and Metageitnion *plenus*. The third year might have suited in other respects; but Antiphon himself was put to death soon after its commencement.

### SECTION III.—*Reasons for coming to the conclusion that the date of the adoption was B. C.* 425.

By the kind of investigation which has thus been illustrated, we should trace the actual use of the Metonic correction, possibly as far back as B. C. 420,—within 12 years of its first publication,—and certainly as far back as B. C. 416, within 16. And, whichever of these years was the date of the speech just considered, it would be an obvious inference from its tone throughout, that the constitution of the civil year, recognised by it as existing *de facto* at the time, had not just come into being. The question still remains, What was the actual date of the adoption of the correction, and of the other changes in the preexisting state of things which accompanied it, if it was not the date of the correction itself? In answer to which, it would make little difference to our present argument what year might be assigned, if it was only later than B. C. 432, and earlier than B. C. 416, or B. C. 420. Yet we have seen reason to conclude, that the actual year was B. C. 425; and we shall now proceed to lay the grounds of this conclusion before the reader.

i. In the first place, as no writer on these subjects, so far as we know, has ventured to assume that, in undertaking the reformation of the calendar, Meton was acting by public authority, we may take it for granted that both in the first conception of his design, and in its final execution, he acted of his own accord. And this consideration, in the judgment of any unprejudiced person, must be a strong ground of inference *a priori* that he could not even himself have expected his correction to be received all at once into public use. For if so, what trial could it previously have experienced? And without some previous trial, what proof could it exhibit of its superiority to the old calendar? And without some proof of its superiority, what reason could there be to suppose the Athenians would discard the calendar handed down from the time of Solon, and consecrated by so long a prescription, and now (as it might appear) indissolubly interwoven with all the details of public and private life, in favour of a new, an hitherto unheard of, system of time, which a private individual was recommending them to substitute for it?

We have seen [p] that the first thing which Meton did, after the completion of his calendar, was to set it up in the Pnyx; at that time the stated place of the ἐκκλησία, and therefore the most public quarter in Athens: and that this was done in the year of Apseudes, B. C. 432. Now what could he propose by setting it up in that locality, except to make it accessible to all his fellow-citizens? and what could he intend by that, except that it should be examined, and studied, and compared both with the calendar still in use, and with the heavens? Some time however would be necessary, and some must be allowed, for such a comparison; especially, as just at this time either both the old calendar and the new were equally true to the moon, or, if one of them appeared to be a little in defect in that respect, the other might seem to be just as much in excess. It has been seen, from the date of the eclipse, August 3, B. C. 431, in the second year of the correction itself, that if the νουμηνία of Metageitnion in the old calendar was one day behind that date, the νουμηνία of the same month in the new, was one day in advance of it. And though this was an accidental anomaly in the Metonic cycle, arising out of its peculiar rule of exemtion, yet at first sight it would appear to be an objection to it; and the old calendar, as tested by actual comparison with the lunar numenia, through the visible solar eclipse of August 3, the same year, would seem to be quite as true to the moon, at that moment, as the Metonic correction itself.

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[p] Vol. i. 185. 436.

As time however went on, the comparative accuracy of the two Calendars would repeatedly be put to the test in such a manner as to leave the superiority of the new one no longer questionable. For example, by means of the lunar eclipse, Jan. 2, B. C. 429, the 17th in the old calendar, the 15th in the new; by that of June 27 B.C. 429, the 17th in the old calendar, the 15th in the new; by that of December 21 the same year, the 17th in the old calendar, the 15th in the new; by that of June 17 B. C. 428, the 18th in the old calendar, the 16 = 15th in the new: and so on, down to B.C. 426; when there was a lunar eclipse October 21, on the 15th of Pyanepsion in the Metonic calendar, on the 18th in the calendar of Solon; and B. C. 425, when there was a lunar eclipse on April 15, the 15th of Munychion by the former, the 18th by the latter. Some of these eclipses might have been visible at Athens; and regarded as tests of any two lunar calendars, both of which alike professed to be true to the moon, they could not fail to convince an impartial observer of the superiority of the Metonic over the old octaëteric one; falling always in the former just as they ought to have done in a calendar which agreed with the moon, on the 15th of the month, and in the latter sometimes two days sometimes three later than the 15th, never actually upon that day.

Now this kind of comparison might have been instituted, and allowed to continue, for the greater part of *one* octaëteric cycle; but there does not seem to be any good reason *a priori* why it should have been necessary longer than that. It should be remembered that the object of the trial was not to test the accuracy of the old cycle, but that of the new. The former, from long experience, was known to be liable to a certain error; the nature and magnitude of which were well understood: but whether the latter was free from the same defect, or liable to any other, not less injurious to its accuracy as a true measure of lunar time in terms of civil perpetually, was a problem which had yet to be solved. On every account then, some trial of the calendar of Meton, preliminary to its final adoption, was *a priori* to be expected. The question can be only, For what length of time? and when would this trial be considered to have lasted long enough? One octaëteric cycle might have been devoted to that purpose; but there could be no necessity for more than one. One cycle alone was competent to throw the old calendar two days behind the moon; and if it produced no such effect on the new one, nor any other of a contrary kind, the superiority of the latter must have been satisfactorily ascertained. We might then, *a priori*, expect to find the Metonic calendar not adopted before B. C. 425, or 424; but either then or soon after.

ii. Thucydides, speaking of the date of the peace, Elaphebolion 25, B.C. 421, at the end of the *tenth* year of the war[q], might, by implication, be supposed to recognise a change in the beginning of the archontic year, between the first year of the war, B. C. 431, and this tenth, the date of the peace, B. C. 421; and if we are right in our hypothesis of the adoption of the new style, B. C. 425, such a change must actually have taken place meanwhile. We confess however, it does not appear to us that this was his meaning; but simply that, wheresoever in the natural year the official year began, the division of the chronology of the war into winters and summers was better adapted to distinguish the order and course of its events, than the succession of archons. If the archontic year began in Gamelion, *after* the winter solstice, the same winter would have to be divided between two archontic years; if it began in Hecatombæon *after* the summer solstice, the same summer would belong to two different archons. If such was really his meaning in this instance, the testimony of this passage with respect to the particular question of a change in the beginning of the official year, between B. C. 431, and B. C. 421, which at first sight might seem to be implied by it, must be considered neutral.

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[q] v. 20.

iii. It is otherwise however, with the statement which occurred just before[r], at the beginning of the eighth year of the war, B. C. 424: *Τοῦ δ' ἐπιγιγνομένου θέρους εὐθὺς τοῦ τε ἡλίου ἐκλιπές τι ἐγένετο περὶ νουμηνίαν, καὶ τοῦ αὐτοῦ μηνὸς ἱσταμένου ἔσεισε.* The way in which this natural phenomenon is mentioned here, compared with the allusion to the same phenomenon B. C. 431[s], as we argued before[t], is an intimation that the civil calendar was now true to the moon, and that this eclipse was happening on the numenia by both. The Julian date of this eclipse was certainly March 21. There was no solar eclipse that year besides: and March 21 was two days too late for the first of Elaphebolion, Cycle ii. I. of the old Octaëteris, but exactly coincident with the first of Elaphebolion, Cycle i. 8. of the Metonic calendar. If so, the civil numenia of Elaphebolion at this time was not March 19, but March 21; and the Metonic calendar had already been substituted for the Octaëteric. And forasmuch as, whensoever it was adopted, it must have borne date from the first of Hecatombæon; if it was already in use on the first of Elaphebolion, B. C. 424, it could not have been adopted later than Hecatombæon 1, B. C. 425. And this being the very last year of the first Cycle of the second Period of the old Octaëteris, this coincidence goes far to confirm our conclusion that the actual date of its adoption was the last year of the first Cycle of this second Period itself.

iv. The account which Thucydides has given of the failure of the scheme for the surprise of Siphæ, concerted this same year between some of the Bœotians and Demosthenes and Hippocrates, the generals of the Athenians[v], appears to us to imply that the calendar of the Athenians had undergone a change B. C. 425, which was in force B. C. 424; to which this failure was ultimately due. The return of Demosthenes, after the affair of Ambracia, was mentioned B. C. 426 or 425[x]. At the beginning of B. C. 425 he took part in the proceedings at Pylus[y]. The next year, B. C. 424, in the summer he was one of the expedition, undertaken for the surprise of Megara[z]; and in the course of the same summer[a] (not long before the season of vintage, as the context implies[b], i.e. the latter end of September) he was despatched to Naupactus, to be ready at the proper time for the surprise of Siphæ. Thucydides twice tells us[c] some *one* day was preconcerted for the attempt; on which Demosthenes was to be at Siphæ and Hippocrates was to occupy Delium.

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[r] iv. 52.

[s] ii. 28.

[t] Vol. i. 489.

[v] iv. 76, 77. 89-101.

[x] iii. 105-114.

[y] iv. 2-41.

[z] iv. 52. 66. 74.

[a] iv. 76.

The project however failed[d]; and the failure was due to a mistake of the time appointed, made by one or other of the Athenian commanders; and a mistake which appears to have amounted to *two* days[e]: for Demosthenes had already made his attempt on Siphæ, and had already been disappointed, and the Bœotians had already returned home from that quarter, before Hippocrates arrived at Delium. Now Hippocrates arrived at Delium on the *third* day after he set out from Athens. We may conclude then that he set out from Athens the same day on which Demosthenes arrived before Siphæ; and as the Bœotians had already been put on their guard against this attempt, it is plain that it would fail the very day on which it was made, and they would be at liberty to return home the next day. Two days only then could have been occupied by the proceedings at Siphæ; and these must have been the *two* during which Hippocrates was still on his march to Delium. On the *third* day he arrived; and set about securing the place: and the same day the Bœotians must have begun to assemble their forces for its relief*. On every account then, it appears most reasonable to conclude that the failure of the scheme was due to a mistake of two days; a mistake made by one or the other, Demosthenes or Hippocrates; and a mistake which, in our opinion, is most probably to be accounted for by the difference of calendars where Demosthenes was, and where Hippocrates was, respectively.

* Siphæ was a day and an half's march from Thebes; and Tanagra, where the Bœotians assembled their forces before the relief of Delium, was about the same. It is evident therefore that between the attempt on Siphæ and the battle of Delium there could not have been more than four days clear at most: and Thucydides, iv. 90, gives us to understand that the battle took place on the third day after the arrival at Delium, and the beginning to fortify the place; consequently on the fifth after the setting out of Hippocrates from Athens, and the arrival, as we are supposing, of Demosthenes before Siphæ.

[b] iv. 84. 88. [c] 76, 77. [d] 89, 90 sqq. [e] Cap. 90.

As the persons who acted in concert with Demosthenes were Bœotians, and Siphæ at this time belonged to the Bœotians; there is every reason to presume they would reckon by the Bœotian calendar. This calendar was the representative of the second Type of the Hellenic Octaëteris in general; and its epoch being Jan. 13, B. C. 567, B. C. 424 in the decursus of its proper Period corresponded to Period i. 144, Cycle xvii. 8, when the epoch was falling Dec. 25, B. C. 425. Compared with the Metonic calendar, the same year, it stood as follows:

| | *Bœotian Calendar.* Cycle xvii. 8. | | Days. | | | *Metonic Calendar.* Cycle i. 7. and 8. | | |
|---|---|---|---|---|---|---|---|---|
| i. | December | 25 | 29 | B. C. 425 | vi. | Posideon B | Dec. 23 | Ex. 12 |
| ii. | January | 23 | 30 | — 424 | vii. | Gamelion | Jan. 21 | |
| iii. | February | 22 | 29 | | viii. | Anthesterion | Feb. 20 | — 15 |
| iv. | March | 23 | 30 | | ix. | Elaphebolion | Mar. 21 | |
| v. | April | 22 | 29 | | x. | Munychion | April 20 | — 18 |
| vi. | May | 21 | 30 | | xi. | Thargelion | May 19 | |
| vii. | June | 20 | 29 | | xii. | Skirrhophorion | June 18 | — 21 |
| viii. | July | 19 | 30 | | i. | Hecatombæon | July 17 | |
| ix. | August | 18 | 29 | | ii. | Metageitnion | Aug. 16 | — 24 |
| x. | September | 16 | 30 | | iii. | Boëdromion | Sept. 14 | |
| xi. | October | 16 | 29 | | iv. | Pyanepsion | Oct. 14 | — 27 |
| xii. | November | 14 | 30 | | v. | Mæmacterion | Nov. 12 | |
| xiii. | December | 14 | 30 | | vi. | Posideon | Dec. 12 | Ex. 30 |

It appears from this comparison that the Bœotian numeniæ, B. C. 425–424, were ranging just two terms higher than the Attic all round the calendar. The time of the year, at which the attempt was made, was directly after the ἀρχὴ χειμῶνος, which in the idiom of Thucydides bore date with the autumnal equinox (in the Parapegma of Meton September 27). We should be of opinion that the day actually fixed upon was about the first of Pyanepsion, in the Attic calendar, or the first of the 11th month in the Bœotian, the name of which, as we hope to see hereafter, was Damatrius. Between these there was two days' difference; and hence the mistake which was actually committed. Demosthenes seems to have thought that as Hippocrates was at Athens he would reckon by the Attic calendar; and therefore took his own measures to make the attempt on Siphæ on the first of Pyanepsion, October 14. Hippocrates, on the other hand, appears to have supposed that as Demosthenes was in Bœotia and acting in concert with Bœotians, he would reckon by the Bœotian calendar: and therefore would not think of setting out before the first of Damatrius. A mistake however like this, amounting to a difference of two days, and no more, between the Attic calendar for the time being and the Bœotian, implies of necessity that the former at this time must have been the Metonic. The difference between the Bœotian style and that of the old Octaëteris, Period ii. 9, Cycle ii. 1, B. C. 424, would have amounted to *four* days; the epoch of this latter, at that time, being Jan. 19, that of the corresponding month in the former being Jan. 23.

v. The Acharnenses of Aristophanes, according to the Argument, were acted at the Lenæa or Anthesteria, ἐπὶ Εὐθυμένους, which the learned correct, 'Επὶ Εὐθυδήμου or Εὐθύνου, Feb. 12–14 B. C. 425: Aristophanes being first, with this play, Cratinus second, with his Χειμαζόμενοι, and Eupolis third, with his Νουμηνίαι. The title of this last play is singular. The best explanation of it, in our opinion, would be the state of the calendar for the time being. The old octaëteric calendar and the new calendar of Meton had been going on now for seven years in conjunction. No doubt each of them had its respective abettors and advocates; and very probably the merits of each at this very time were the subject of warm disputes: and that very circumstance might have suggested to Eupolis the idea of his comedy; the title of which was much the same as if he had called it the Rival New-moons, the Rival Calendars, or the Rival Systems of time *.

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* The ancient Grammarians refer to a lost play of Epicharmus' also, under the title of his Μῆνες; and to another under that of his Τριακάδες: cf. Hesychius, Σκωρνυφίαν, Σκυφοκώνακτος. The Μῆνες of Φιλέταιρος also are referred to in the scholia ad Aves, 1047: and the Μῆνες of Σιμμίας, Steph. Byz. 'Αμύκλαι. As we have more than once observed, we can form at present but an inadequate idea of the extent to which the difference of style prevailed anciently; but that being a notorious fact everywhere, if we consider what confusion would seem to be the necessary consequence of such a state of things, it is easy to see that in the hands of one of the old comic Poets an ingenious comedy of errors might have been founded

vi. The next year but one after this, at the Dionysia ἐν ἄστει ἐπὶ Ἰσάρχου, those of B. C. 423, according to the vth Argument, appeared the first edition of the Nubes; called the πρῶται, in contradistinction to the δεύτεραι, exhibited the next year, ἐπὶ Ἀμεινίου, B. C. 422. These Διονύσια ἐν ἄστει in the year of Isarchus would be the second which had yet been in course since the change of style, if that took place Hecatombæon 1 B. C. 425; and the new style would now have been one year and six months in actual use.

Now concerning one of the consequences of this change of style, whensoever it might take place, the revision of the old calendar, and the alteration of a variety of stated dates both religious and civil, we spoke not long since[f]. There is a passage in the Nubes, which should by all means be read, with the fact of the recent change in the style, and of this *one* of its consequences, kept in mind. The chorus of Clouds is supposed to be delivering a message to the Athenians from the moon[g]—

Ἡνίχ' ἡμεῖς δεῦρ' ἀφορμᾶσθαι παρεσκευάσμεθα,
ἡ Σελήνη ξυντυχοῦσ' ἡμῖν ἐπέστειλεν φράσαι,
πρῶτα μὲν χαίρειν Ἀθηναίοισι καὶ τοῖς ξυμμάχοις·
εἶτα θυμαίνειν ἔφασκε· δεινὰ γὰρ πεπονθέναι,
ὠφελοῦσ' ὑμᾶς ἅπαντας οὐ λόγοις ἀλλ' ἐμφανῶς.
πρῶτα μὲν τοῦ μηνὸς εἰς δᾷδ' οὐκ ἔλαττον ἢ δραχμὴν,
ὥστε καὶ λέγειν ἅπαντας ἐξιόντας ἑσπέρας·
Μὴ πρίῃ παῖ δᾷδ', ἐπειδὴ φῶς σεληναίης καλόν.
ἄλλα τ' εὖ δρᾶν φησιν· ὑμᾶς δ' οὐκ ἄγειν τὰς ἡμέρας
οὐδὲν ὀρθῶς, ἀλλ' ἄνω τε καὶ κάτω κυδοιδοπᾶν.
ὥστ' ἀπειλεῖν φησιν αὐτῇ τοὺς θεοὺς ἑκάστοτε
ἡνίκ' ἂν ψευσθῶσι δείπνου κἀπίωσιν οἴκαδε,
τῆς ἑορτῆς μὴ τυχόντες κατὰ λόγον τῶν ἡμερῶν.
κᾆθ' ὅταν θύειν δέῃ στρεβλοῦτε καὶ δικάζετε.

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on the difference of calendars. And such was probably the end and object, in other words, the argument or plot, of these plays of theirs in particular, with the title of Μῆνες, Τριακάδες, Νουμηνίαι, or the like. Epicharmus' time is generally assumed Ol. lxxiii. B. C. 488–484: cf. Schol. ad Aristoph. Prolegomena, Cap. iii. p. 23. l. 19. Περὶ Κωμῳδίας: Suidas in voce; and the Fasti Hellenici of Mr. Clinton. He flourished under Gelo and Hiero, kings of Syracuse; and the Syracusan calendar of his time being one of those which belonged to the Third Type of the Hellenic Octaëteris, Jan. 7 B. C. 542, the true new moons in that, at that time, were 10 or 11 days in advance of the civil.

[f] Vol. i. page 508.

[g] Verse 607.

πολλάκις δ' ἡμῶν ἀγόντων τῶν θεῶν ἀπαστίαν,
ἡνίχ' ἂν πενθῶμεν ἢ τὸν Μέμνον' ἢ Σαρπηδόνα,
σπένδεθ' ὑμεῖς καὶ γελᾶτ'· ἀνθ' ὧν λαχὼν Ὑπέρβολος
τῆτες ἱερομνημονεῖν, κἄπειθ' ὑφ' ἡμῶν τῶν θεῶν
τὸν στέφανον ἀφῃρέθη. μᾶλλον γὰρ οὕτως εἴσεται
κατὰ σελήνην ὡς ἄγειν χρὴ τοῦ βίου τὰς ἡμέρας.

There is an intelligible meaning and point in these lines, if the change of style was as recent an event as we are supposing, and if its effects on the civil and the ritual calendar also had been such as we have supposed. Aristophanes was no admirer of the change: and he has lost no opportunity which came in his way of holding up both Meton and his correction to ridicule. We observe that he speaks of the confusion, in some manner or other introduced into the reckoning of time, as a κυδοιδοπᾶν—

Οὐδὲν ὀρθῶς, ἀλλ' ἄνω τε καὶ κάτω κυδοιδοπᾶν.

This word occurs again in the Pax[h]—

Ἐψόφει γοῦν ἔνδον οὐκ οἶδ' ἄττα κἀκυδοιδόπα—

and Hesychius explains it by ταράσσειν, θορυβεῖν, κυκᾷν[i]; and he has also Ἰδοιδοπεῖ ἢ κυδοιδοπᾷ· ταράσσει. The meaning implied by it in this instance seems to have been that of "a turning of things upside down"—a confusion of reckoning, sometimes too early, sometimes too late; as if some things in the calendar had been set before their time, some thrown beyond their time: all which might have been simply the effect of the change in the rule of the exemtile day—purposely represented by Aristophanes (who had a mind to turn the whole economy of the new calendar into ridicule) as a jumbling of things topsyturvy.

Moreover the old calendar at this time being *three* days behind the new, the *numeniæ* by the former would be falling on the 27th or 28th of the month in the latter: and the numeniæ of all the months, according to old and immemorial usage, were sacred to all the gods[j]; whereas the 27th and 28th of the month, as Pollux informed us[k], were stated days for the sittings of the court of Areopagus. And hence an observable point in the complaint which is put into the mouth of the gods, that the Athenians were torturing criminals, and doing other things usual in the administration of criminal justice, when they ought to be keeping holiday and doing sacrifice—over and above the further complaint that by the new rule of reckoning, and according to the new style, they were often keeping holiday and making merry, when the gods themselves, by the old rule and according to the old style, were keeping fast. For Aristophanes wished it to be believed that the old calendar was still the calendar of the gods, and the old style was still current in Olympus; whatsoever might be so among the Athenians and upon the earth below *.

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[h] Ad vers. 1152.

[i] Cf. Suidas in Κυδοιδοπᾶν, and the scholia on the Nubes, 616.

[j] See supra, Diss. ii. P. 1. ch. i. vi. vol. i. 264. note.

[k] Supra, Diss i. ch. iii. ii. vol. i. p. 59. n.

* The number of holidays (*Dies feriati, Dies Nefasti,*) in the Attic calendar, so far as we know, has not been specified anywhere in antiquity. There is no doubt however it was something considerable. *Πάντα μεστὰ ἑορτῆς τὰ Ἀττικὰ, πάντα θυμηδίας*[1]—*Μικρὰς Ἀθήνας ἐκάλουν τὴν Φιλαδέλφειαν διὰ τὰς ἑορτὰς καὶ τὰ ἱερὰ τῶν εἰδώλων*[2]. Philadelphia in Asia Minor was Lydus' own city[3]. Xenophon, speaking of the delays in the transaction of business, either with the senate or with the people, at Athens, ascribes much of them to the number of holidays in the course of the year: *Πῶς γὰρ ἂν καὶ οἷοί τε εἶεν; οὕστινας πρῶτον μὲν δεῖ ἑορτάσαι ἑορτὰς ὅσας οὐδεμία τῶν Ἑλληνίδων πόλεων. ἐν δὲ ταύταις ἧττόν τινα δυνατόν ἐστι διαπράττεσθαι τῶν τῆς πόλεως*[4]—*Πρὸς δὲ τούτοις οἴεσθαι χρὴ καὶ ἑορτὰς ἄγειν χρῆναι Ἀθηναίους, ἐν αἷς οὐχ οἷόν τε δικάζειν. καὶ ἄγουσι μὲν ἑορτὰς διπλασίους ἢ οἱ ἄλλοι. ἀλλ' ἐγὼ μὲν τίθημι ἴσας τῇ ὀλιγίστας ἀγούσῃ πόλει*[5].

It may be inferentially collected however from the proportion between the number of days in the calendar, during which the courts were open, and lawsuits might be going on, and the number of those for which they were closed, and no business of any kind could be done. Εἰσὶ δὲ καὶ παρὰ Μενάνδρῳ, observes Pollux[6], *δικάσιμοι ἡμέραι.* And there is a passage in Hesychius bearing on this point, which, as it stands in his text, is very obscure: *Ἁμέρια· τριακάδες δέκα—Ἁμέριον ἔργον· τὸ ἡμερήσιον.* One sense of *ἡμέρα* or *ἁμέρα* is that of *dies forensis,* a court-day. If that is the meaning of *ἁμέρια* (*ἔργα*) here, it will be implied that there were 300 such days in the year. If *ἁμέριον ἔργον* be understood of people's daily work or employment, whatsoever that might be, it will be implied in like manner, that there were 300 days on which people might be so employed, in contradistinction to a certain number more, on which they might not.

The first of these constructions is confirmed by a passage of the Vespæ of Aristophanes[7], acted B.C. 422. The number of *δικασταὶ*, in all the courts at Athens put together, is there reckoned at 6,000; though the

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[1] Maximus Tyrius, iii. 10.

[2] Joannes Lydus, De Mensibus, iv. 40. 75. 12.

[3] Vide De Magistratibus, iii. 58. 251. 22: 59. 252. 17.

[4] De Republica Athen. iii. 2.

[5] Ibid. 8.

[6] viii. v. 866. 26.

[7] 661–663.

From the conclusion of this same passage too we may infer that the principal promoter of the adoption of the Metonic Correction, and of the change of style, had been the dema-

sum total of citizens at this time amounted to 20,000[8]; and when the Ecclesiazusæ was exhibited (B. C. 392), to 30,000[9]. But it appears from the Scholia on the Plutus[10], that the Judges or *δικασταὶ* were limited to such of the citizens as were 60 years old at least.

Now these Judges received a daily salary, which at first was two oboli (the sixth part of a drachma), and then three, then four, and at last as much as a drachma[11]; but at this time it was limited to three oboli, having first been raised to that amount by Cleon, as it would seem in B.C. 424[12]. The total expense on this account in the year is estimated at 150 talents[7], 900,000 drachmæ, 5,400,000 oboli; which at the rate of three oboli a day, among 6,000 recipients of that sum, was equivalent to 300 days' pay. (6000 × 3 = 18000 and 18000 × 300 = 5,400,000 = 150 talents.) And so the Scholiast in loc. explains it: *Εἰς ι′ μῆνας λογίζεται τὸν ἐνιαυτὸν, ὡς τῶν β′ εἰς ἑορτὰς προχωρούντων· ἑκάστῳ γὰρ τριώβολον τῆς ἡμέρας ιε′ τοῦ μηνὸς τάλαντα ἐποίει, ὡς ἐκ τῶν ἑξῆς δῆλον γίνεται.*

This then was the number of Court-days in the Attic year, viz. 300. The number of holidays consequently must have been the difference of 354 and 300; i. e. 54. And this serves to explain the statement which occurs in Diogenes Laertius[13], that the 360 statues, erected to Demetrius Phalereus, were completed in less than 300 days. The meaning is, they were all finished within the compass of one year; but there were 54 days in the course of the year, when the statuaries would not work. Now any one of these *dies feriati* of the calendar was liable to be affected by the change of style; and no doubt many of them actually were so. We may conceive therefore how many innovations, and seemingly how many anomalies, in the old Octaëteric rule of the calendar, would be the result of the adoption of the Metonic Cycle.

It is however worth while to remark that, supposing these 54 holidays in the Attic year to have been all the appointment of Solon, they are only four more than the number of weeks in the lunar year of 354 days: and very possibly Solon, who had visited Egypt and other parts of the East, before he legislated for Athens, if not before aware of the Hebdomadal Cycle and the sabbath or seventh day, might have become acquainted with it there, and have purposely limited the number of holidays in his year to the number of weeks or sabbaths. Cf. our F. Catholici, i. 389 note.

[8] Verse 709.

[9] Verse 1132.

[10] Verse 330.

[11] Cf. Scholia ad Ranas, 140: Photii Lex. *ὀβολὸς ἡλιαστικός*: and *τετρωβολίζων.*

[12] Cf. Scholia ad Plutum, 330: Vespas, 88. *φιληλιαστής*: ad 299. *Μισθαρίου*: also ad 300: and generally ad 197. 388. 658. 661. 682. 693. 783. 791. 1001: ad Equites, 51: Aves, 1540: Ecclesiazusas, 294. 297. 312. 380. 392: Schol. ad 544: Schol. ad Plutum, 171. 329: Hesychius, *Δικαστικόν*: Anecdota Græca, 185. 4: *Βακτηρία καὶ σύμβολον*: Suidas, *Βακτηρία καὶ Σύμβολον, Ἡλιασταὶ, Σύμβολον*: Lucian, ii. 805: Bis Accusatus, 12. 15.

[13] v. v. ii. 75.

gogue Hyperbolus; who must have used his influence for that purpose. And because of the part taken by him in bringing it about, Aristophanes would have it believed he had been visited with a particular mark of the displeasure of the Gods; viz. that, having been appointed to represent the Athenians as Hieromnemon, at the Amphictyonic Council, he had lost his crown, which he should have worn in that capacity[*]. The Amphictyons met twice in the year, once in the spring, at Pylæ, once in the autumn, at Delphi; and the cities or communities which composed the league were represented in the council by one deputy, who was called *ἱερομνήμων*, and by three others, who were called *πυλαγόραι*. It is observable that both the appointment of Hyperbolus to the former office, and the loss of his chaplet, as a consequence of it, are said to have happened *τῆτες*—i. e. *this* year[†]: and that being referred to the date of the play, the Dionysia ἐν ἄστει, Elaphebolion 12, Cycle i. 9. March 21, B. C. 423, it cannot be

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[*] Artemidorus, Oneirocritica, i. 18. (cf. i. 79: ii. 3,) a proper insigne of some kind or other, a *διάδημα* (a crown), a *στέφανος* (a chaplet), a *στρόφιον* (a fillet), was worn by every one in office, *αἱ ἀρχαὶ πᾶσαι*. At Athens, the nine archons wore a chaplet of myrtle: Pollux, viii. ix. 1. 906: Scholia ad Equites, 960. cf. Suidas in Μυρρίνη. The Scholia ad Equites 59. say the same of the *στρατηγοί*. Tertullian, iv. 358. De Corona, 13: Coronant et publicos ordines laureis publicæ caussæ, magistratus vero insuper omnes, ut Athenis, ut Romæ. Dio Chrysost. xxxiv. 48. 15. (at Tarsus): *Τοιγαροῦν ἐστεφανωμένους πολλοὺς ἰδεῖν ἐστὶ καθ' ἑκάστην πόλιν, καὶ θύοντας ἐν κοινῷ, καὶ προϊόντας ἐν πορφύρᾳ.* Cf. xxxv. 66. 20. But that it was more particularly usual for those who went upon or returned from a religious errand to Delphi, to wear a chaplet (and of laurel), appears from the Œdipus Tyrannus of Sophocles, 82. and the Scholia in locum, and from the Plutus of Aristophanes, v. 20, 21. and the Scholia. Cf. also v. 39. And this is a strong ground of presumption that Hyperbolus' mission on this occasion had been to the meeting at Delphi; not to that at Pylæ. Consequently in the autumn, B. C. 424, not in the spring, B. C. 423.

[†] Harpocration, *τῆτες· ἀντὶ τοῦ τούτῳ τῷ ἔτει· Λυσίας...Ἀριστοφάνης Γήρᾳ (Γηρυτάδῃ), καὶ οἱ ἄλλοι.* cf. Phot. Lex. *τῆτες*. Suidas, *τῆτες καὶ τῆτα*: Scholia ad Nubes, 624. *τῆτες*. Ælian, De Natura Anim. i. 25: *Τὴν ὕαιναν τῆτες μὲν ἄρρενα εἰ θεάσαιο τὴν αὐτὴν ἐς νέωτα ὄψει θῆλυν.*

The mission of Hyperbolus to the Amphictyonic Council, as the meaning of the allusion contained in this passage, is recognised by the Scholiast in locum[1]: *Ἐξέπεμπον γὰρ οἱ Ἀθηναῖοι*[2] *εἰς Δελφοὺς ἱερομνήμονας, οἳ τῶν τοῦ θεοῦ ἱερῶν προεστήκεσαν.* The same Scholiast however subjoins: *Παρ' ἱστορίαν δὲ εἶπεν τὸ τῆτες· οὐδεὶς γὰρ ἱστορεῖ ἐν ἐκείνῳ τῷ ἔτει ἱερομνήμονα εἶναι Ὑπέρβολον, ἐν ᾧ αἱ Νεφέλαι ἐδιδάχθησαν.* But this was no necessary

[1] Ad ver. 624. [2] Ad v. 626.

proof that he was not so: and Aristophanes' testimony is or ought to be sufficient to vouch for his appointment to that office in the year of the Nubes: though the truth may still have been, that, for some reason or other (which Aristophanes purposely so represents as if it was the doing of the Gods), though appointed, he did not serve: what Aristophanes expresses by his being deprived of his crown—that is, of the badge of his office—the loss of which implied the loss of the office also.

The Scholiast adds as a reason why he could not have been so appointed and at this time: Οὐδέπω γὰρ διέπρεπε Κλέωνος ἔτι ζῶντος: a statement which may very well be called in question: and in fact is inconsistent with an observation of his own[3]: Φαίνεται δὲ ὁ Ὑπέρβολος ἤδη εἰσβὰς εἰς τὴν πολιτείαν—at the date of that play, B. C. 424.

It is implied in the Acharnenses[4], that he had begun to be an influential character before B. C. 425, and by the Equites[5], that he was still retaining this influence, B. C. 424, in the lifetime of Cleon: by the Vespæ[6], that he was a leading demagogue, B. C. 422, and by the Pax, that he was still such in the thirteenth year of the war[7], B. C. 418. The allusion to him in the Nubes[8], when Cleon was certainly still alive, is sufficient to disprove the statement of the Scholiast. The Maricas of Eupolis was written as directly against him[9], as the Equites of Aristophanes against Cleon; and the date of that play was earlier than that of the second Nubes; though that too was produced in the lifetime of Cleon, B. C. 422. And not only Eupolis, in his Maricas, and also in his Baptæ[10], but Hermippus[11], and Plato[12], contemporary comic poets, thought him of sufficient importance to be made the subject of their satire.

The Scholiast on Lucian[13] furnishes more particulars of the history of this demagogue than any other of the ancient commentators: Ὑπέρβολος οὗτος, ὡς Ἀνδροτίων φησὶν, Ἀντιφάνους ἦν, ὃν ὠστρακίσθαι διὰ φαυλότητα. ὁ δὲ αὐτὸς καὶ λυχνοποιὸς ἦν[14], καὶ ἐλυχνοπώλει, ὡς Ἀνδοκίδης ἱστορεῖ[15]. . .ἐπὶ τούτου δὲ καὶ τὸ ἔθος τοῦ ὀστρακισμοῦ κατελύθη, ὡς Θεόφραστος ἐν τῷ περὶ Νόμων λέγει. Πολύζηλος δὲ ἐν Δημοτυνδαρέῳ Φρύγα αὐτὸν εἶναι, εἰς τὸ βάρβαρον σκώπτων, φησί. Κρατῖνος δὲ ἐν Ὥραις[16], ὡς παρελθόντος νέου τῷ βήματι μέμνηται, καὶ παρ' ἡλικίαν, καὶ Ἀριστοφάνης Σφηξὶ καὶ Εὔπολις Πόλεσι. Πλάτων δὲ ὁ κωμικὸς ἐν Ὑπερβόλῳ Λυδὸν αὐτόν φησιν εἶναι . . . ἔστι δὲ τῇ ἀληθείᾳ Χρέμητος, ὡς Θεόπομπος ἐν τῷ περὶ Δημαγωγῶν. Θεό-

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[3] Ad Equites, 1360.

[4] Verse 846.

[5] Verse 1393–1315. 1362. 1363.

[6] Verse 1007. cf. the Pax, v. 691. and the Scholia in loc.

[7] Verse 681–687. cf. 921. 1319.

[8] 551–559. and the Scholia in loc.

[9] Scholia ad Nubes, 553: Ranas, 577.

[10] Schol. ad Nubes, 554.

[11] Schol. ad Nubes, 557.

[12] Schol. ad Nubes, 558: ad Aves, 121: Thesmophoriazusas, 815. 847.

[13] Opp. i. 143: Timon, 30. § 10.

[14] Cf. Scholia ad Equites, 1301. 1310: Nubes, 1065: Pac., 680. 691.

[15] Cf. Scholia ad Vespas, 1001. cf. ad Pac., 691.

[16] Cf. Scholia ad Pac., 680.

understood of any appointment against the spring meeting of the council, B. C. 123, unless it could be proved that those meetings took place before the month Elaphebolion in the Attic Calendar; and therefore it must refer to some appointment against the autumnal meeting, B. C. 124. If so, it will imply that the civil year was now not beginning in Gamelion, but in Hecatombæon: as it must actually have done B. C. 124–123, if the change of style took place B. C. 425.

## Section IV.—*Confirmation of the above conclusion by the date of the Callippic Correction, and by that of the Correction of Timocharis.*

The Callippic Correction of the Metonic Cycle has often been referred to: but nothing as yet has been said of its date. There are many dates in the Magna Compositio, in terms of different Callippic Periods; all which agree in a common epoch, June 28 at 18 h. according to the Attic rule, June 29 at midnight, according to the Julian, B. C. 330. Such dates begin to be mentioned, Lib. iii. ii. Opp. i. 153: and continue to be mentioned down to the end of the work. We shall have occasion to refer to most of them hereafter. At present, we will take only one; and that merely for the sake of authenticating the date of the Correction itself.

The summer solstice was observed by Aristarchus of Samos, in the 50th year *exeunte* of the first Callippic period[1]; i. e. at the end of 50 years complete from the epoch, which, it would thus be implied, must have been the summer solstice. Between this observation, and the solstice observed by Me-

πομπος δὲ πάλιν[17] ἐν δεκάτῳ Φιλιππικῶν ἐν Σάμῳ φησὶν ἐπιβουλευθέντα ὑπὸ τῶν Ἀθήνηθεν ἐχθρῶν ἀναιρεθῆναι, τὸ δὲ νεκρὸν αὐτοῦ εἰς σάκκον βληθὲν ῥιφῆναι εἰς τὸ πέλαγος[18]. Theopompus[17] stated moreover that he was ostracised for six years: and Plutarch relates[19] how this was brought about by a coalition of Nikias and Alkibiades, (confirmed by Thucydides[20], who also mentions his being put to death at Samos, B. C. 411,) sometime before the Sicilian expedition, B. C. 415.

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[1] Magna Compositio, lib. iii. ii. Opp. ii. 162, 163.

[17] Cf. Scholia ad Vespas, 1001: Pac. 680: Ranas, 577.

[18] Cf. generally ad Pacem, 681. 1319: Thesmophoriazusas, 840: Ranas, 570: 577: and the Scholia.

[19] Nikias xi. Alkibiades xiii.

[20] viii. 73.

[21] Ibid. cf. 60. 61.

ton, the interval, according to Hipparchus, was 152 years complete. The date of the Callippic correction consequently was 152 — 50, or 102, years, later than the solstice observed by Meton: and that having been June 27 B. C. 432, this must have been on or about June 27 B. C. 330. We have seen[m] that the actual date of Aristarchus' observation was June 27 at midnight, B. C. 280; just 50 years after June 27 B. C. 330. Ptolemy himself compares the year of this observation in the Callippic æra with Alex. or Philippi 44, Nab. 468; Nov. 1 B. C. 281, to Nov. 1 B. C. 280: and it is manifest that this solstice, Cal. Per. i. 50 *exeunte*, June 27 B. C. 280, came critically between the two. Moreover, from the date of this same observation, June 27 at midnight, B. C. 280, to that of his own, (12 hours sooner,) June 26 at noon, B. C. 135, Hipparchus reckoned it 145 years exactly.

There can be no question then that the date of the Callippic correction must have been at or about midsummer, B. C. 330. Other dates too are extant in Ptolemy[n], by means of which not only the year *in* which, but the day *on* which, it took its rise, admits of being determined; and the epoch thus obtained is found to be what we have stated, June 28 at 18 h., or June 29 at midnight, B. C. 330.

Dates also are extant in Ptolemy[o], from which we collect the existence of another Correction of the cycle of Meton, which bore date in the same year as this of Callippus, B. C. 330, but on a different day of the month; June 30 at 18 h., or July 1 at midnight, instead of June 28 at 18 h., or June 29 at midnight. To this Correction we have given the name of that of Timocharis; because, even if not made by him, it was used by him. Now if we turn to the Metonic calendar, Period ii. 27. Cycle vi. 8, both which answered to B. C. 330, we shall see that the epoch that year was falling June 30 at 18 h. by the Attic rule, July 1 at midnight by the Julian. And this date having been made the epoch of the Correction of Timocharis, it is an obvious inference from it, that this Correction did no more than apply the principle of the Callippic Correction to the vulgar Metonic Cycle, taking its own epoch from the current year of the cycle itself; and that with respect to its use and effect, it must have been prospective, not retrospective.

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[m] Diss. iii. ch. i. v. vol. i. 450.

[n] Beginning iv. x. Opp. i. 279.

[o] Beginning vii. iii. Opp. ii. 21.

With regard to the epoch of the Callippic Correction, two days earlier than this of Timocharis', there can be no doubt that if the Metonic cycle had gone on, according to its own principles and rule of administration, without any change, from Cycle i. 1 to Cycle vi. 8, B.C. 432 to B. C. 330, (a period of 102 years,) it must have stood in need, B C. 330, of a correction of one day at least—the proper time and place of which would have been the ingress of Cycle v. Hecatombæon 1 B.C. 356. The epoch of the correction of Callippus consequently, under the circumstances of the case, must have been assumed one day at least earlier than that of the current year of the vith cycle of the vulgar Metonic Calendar; but why it should also have required to be assumed *two* days earlier, may not at first sight appear; but will be explained, and made to appear, hereafter.

Now B. C. 430 was the *eighth* year of the current Metonic cycle; and the question may reasonably be asked, Why did both Callippus and Timocharis fix upon the 8th year of the current cycle, as the epoch of their respective corrections, instead of the 1st, which would have been B. C. 337? It cannot be answered that both did so, because both wished to fix their Correction to the new moon nearest to the summer solstice, June 27; for the epoch of the third year was as near to that date as that of the eighth. Or though this motive should be allowed to account for the choice of the epoch of Callippus, it will not account for that of Timocharis; which was neither more nor less than the epoch of the current year of the current Metonic cycle, and must have been fixed upon simply for that reason.

In our opinion, the true explanation of both these facts is the hypothesis, which we have been endeavouring to render probable; viz. that though the Metonic Correction had been made public B. C. 432, it had not been received before the 8th year of its first cycle, B. C. 425. This consideration might determine both Callippus and Timocharis to look upon B. C. 425, not B. C. 432, as the true epoch of the correction, or as its epoch *de facto*, from the time that it received the public sanction, and came into general use. And reckoning from this epoch just five cycles complete, or 95 years, they would find that of their respective corrections just as naturally in the 8th year of the sixth cycle, B.C. 330; to which, in each instance, they were actually attached.

We cannot help thinking, that this is the true account of the epoch of both these Corrections; and that consequently the date of each is a strong and striking confirmation of our previous reasonings, respecting the actual adoption of the Metonic calendar at Athens. It should by all means be observed, that both Callippus and Timocharis, by fixing on the 8th year of the current Metonic cycle as the first of their own, were determining the relation of their own cycle to the Metonic, properly so called, in such a manner, as would effectually prevent their working uniformly together in practice; because the 8th year in the cycle of Meton was intercalary, but the first in the cycle of Callippus, or Timocharis, could not possibly be so. The names of the months in both cycles indeed would be the same; but the epochs, in consequence of this difference in the intercalary years, would not be the same, except in certain years. It is not to be supposed that either of them (and in particular the author of the Correction of Timocharis, whosoever he was) would knowingly have incurred an inconvenience like this, unless for some urgent reason; such, we may presume, as the matter of fact—that, howsoever long the Metonic calendar might have been before the world down to his own time, its actual recognition, and its reception into public use, did not go further back than five of its proper cycles, 95 years.

## SECTION V.—*On the form in which the Correction was adopted, and on the change in the beginning of the year which accompanied it.*

It is a necessary inference from these premises, and especially from what has thus been shewn of the epoch of the correction of Timocharis, that, when the Athenians adopted the Calendar of Meton at last, they did not begin a fresh cycle with the year of the adoption, but took up the calendar in the *eighth* year of the current cycle. There was no reason *a priori* why they might not do so. There was no necessity to remodel and recast the correction of Meton, either in its principle or its details, in order to accommodate it to a new epoch; when it could so easily be taken up, and continued, just as it was, and just as it had been from its proper epoch, B. C. 432, down to B. C. 425.

The historical circumstances of its actual adoption are unknown; though not more so, if the date of the adoption was B. C. 425, than if it was B. C. 432. Yet this one point may be taken for granted, that whensoever the lunar calendar of Meton was actually received into public use, whether in the first year of its proper cycle, or in the eighth, it was received exactly as Meton had contrived and digested it, and as he himself had made it public, when he set it up in the Pnyx, for the inspection of his fellow citizens.

We may take it for granted also that, among the probable effects of its reception, or rather as a necessary accompaniment of it, a change would be made in the beginning of the official year. We have had the testimony of Thucydides that this year was still beginning on the first of Gamelion, six years after the publication of the calendar of Meton; and *that* fact is only consistent with *this*: that the calendar itself was not adopted as soon as it was made public. But its adoption at last would entail the necessity of a transfer of the beginning of the year from the first of Gamelion to the first of Hecatombæon; and if the date of *this* adoption was B. C. 425, the date of *that* transfer must have been B. C. 425 also. A change in the beginning of the year, again, would affect the term of office—in the case of all the magistrates who had entered on the first of Gamelion last before the change. One and all of them, under the circumstances of the case, must either have gone out of office six months sooner than usual, or have continued in office six months longer than usual; i. e. though they might have come in on the first of Gamelion, B. C. 425, they must all have gone out on the first of Hecatombæon, B. C. 425, or on the first of Hecatombæon, B. C. 424.

The former of these suppositions, as we argued before[n], is on every account the more probable. We assume therefore that among the other circumstances, arising out of the change of the style, and peculiar to the year of the adoption, one was that this year had two sets of magistrates; one which had been elected in Posideon, B. C. 426, and came in in Gamelion, B. C. 425; another, which had to be elected in Skirrhophorion, and came in in Hecatombæon, B. C. 425.

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[n] Diss. i. ch. v. vii. vol. i. page 187.

The names and order of the archons from B. C. 432 to B. C. 425, are as well ascertained as those of any period in the archontic tables, before or after; and assuming only the fact which has been demonstrated, from Thucydides, that the archon of B. C. 431 actually entered on the first of Gamelion, and that, if he did so, the archon last before him must have done the same, and if the beginning of the year, for the next six years, remained unchanged, the next six archons also must have done the same—we may arrange the ingresses from B. C. 432 to B. C. 425 as follows.

*Ingresses of the archontic year at Athens, from B. C.* 432, *the date of the publication of the Correction of Meton, to B. C.* 425, *the date of its adoption.*

| | Name. | Ingress. | Period ii. Cycle i. Year. | | B. C. |
|---|---|---|---|---|---|
| i. | Apseudes. | Gamelion 1. | i. | January 19. | 432 |
| ii. | Pythodorus. | —— | ii. | January 8. | 431 |
| iii. | Euthydemus. | —— | *iii. | Decemb. 28. | 431 |
| iv. | Apollodorus. | —— | iv. | January 16. | 429 |
| v. | Epameinon. | —— | *v. | January 4. | 428 |
| vi. | Diotimus. | —— | vi. | January 23. | 427 |
| vii. | Euclides. | —— | vii. | January 12. | 426 |
| viii. | Euthydemus or Euthynus. | Gamelion 1 | viii. | January 1 | 425 |
| ix. | Stratocles. | Hecatombæon 1 | viii. | July 16 | |

Between these extremes, B. C. 432 and B. C. 425, we thus see, though there were only seven years, or (both being included) only eight; there were nine archons. If then this interval were reckoned by archons alone, it is manifest it would be reckoned at one year too much; and if that was the only mode of reckoning past time, which is known to have been in use at Athens, it is evident also that if the peculiarity which distinguished the last year of this interval, B. C. 425, (viz. its having had two archons eponymi, instead of one,) in the course of time, was forgotten, and overlooked, the result would be a mistake in the chronology of former times, amounting to *one* year in excess.

We cannot illustrate this position by a better example than that of the Parian marble—to which we adverted for the same purpose before[o]. Assuming the epoch, to which all the dates on that monument were referred, to have been B. C. 264, the learned have long since remarked that the archontic names and years, recorded upon it from the lxiind epoch downwards, marked with the name of Astyphilus, agreed with the modern tables; but from the same epoch upwards, differed from them by one year in excess. Take, for instance, the xlixth, the liind, and the liiird epochs of the marble, those of the three battles of Marathon, Salamis, and Platæa respectively; and those of B. C. 490, 480, and 479 respectively. The archons assigned to these epochs are right; Phænippus, to the xlixth, the year of Marathon[p], Calliades to the liind, the year of Salamis[q], Xanthippus to the liiird, the year of Platæa[r]; but the years are one number too high—the year of Phænippus, B. C. 491, the year of Calliades, B. C. 481, and the year of Xanthippus, B. C. 480.

Now, there is no reason, in our opinion, to suppose with some of the learned that the beginning of the archontic years were reckoned from the lxiind epoch downwards, from the first of Hecatombæon, and from the same epoch upwards, from the first of Gamelion; and not, according to the same rule, from first to last: either the first of Hecatombæon, or the first of Gamelion, perpetually. It is quite sufficient to explain this particular anomaly, to suppose that the marble reckoned all along by the archontic series, and considered every distinct archon eponymus equivalent to a distinct year: a rule of reckoning which, from the lxiind epoch downwards, would be in unison with the truth, but from the same epoch upwards, would entail an error of one year in excess of the truth. And it is a great confirmation of this explanation that the error in question begins to appear only prior to the lxiind epoch—corresponding to B. C. 420, marked with the archontic name of Astyphilus, both which are agreeable to the modern arrangements. This was the first epoch, noted on the marble, later than the change of style, and the beginning of the year. The last epoch before this, under which the numbers on the marble are still entire, is the lxth, the date of the death of Æschylus, 193 years before the epoch (B. C. 264 + 193) B. C. 457: in the archontic year of Callias, the former; which the Tables shew B. C. 456.

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[o] Diss. i. ch. v. vii. vol. i. 189.

[p] Cf. Plutarch, Aristides, v.

[q] Cf. Herod. viii. 51. Diodor. xi. 1.

[r] Diodorus, xi. 27. Plut. Aristid. v. Herod. ix. 114.

It is a further confirmation of this explanation of the rule of the marble, as differing only *per accidens* from that of the modern tables, that by merely lowering its dates, prior to the lxiind epoch, one year, they are rendered conformable to those of the modern tables: which, in our opinion, is demonstrative that, whatsoever some of the learned may have imagined to the contrary, the archontic years of the marble must in reality have been reckoned according to the same rule as those of the modern tables (the tables, for instance, of Mr. Clinton); i. e. from the first of Hecatombæon. The reduction of the archontic years of the marble to those of the tables, before B. C. 425, is a simple and easy process; but even when that has been done, an important question still remains, What kind and amount of correction may yet be necessary to reduce both to the truth? for if the beginning of the archontic year before B.C. 425, was the first of Gamelion, and after it the first of Hecatombæon, one rule of the ingress, it is self-evident, could not apply before and after that point of time respectively: yet the modern tables are constructed on the hypothesis of one and the same rule from first to last. That the archontic arrangements of the modern tables, from B. C. 425 upwards, stand in need of some correction, cannot be denied; but as to the correction which may be necessary in every instance, as we before observed, no general rule can be laid down, and each particular year may require a particular correction*. On this subject, it would not be possible to enter into details, in the present work: and we will take our leave of it, with one more statement, applicable to it in general.

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* If Stratocles was really the first of the archons who entered on the first of Hecatombæon; then Euthydemus or Euthynus, the one before him, must have entered Gamelion 1, B. C. 425; yet the tables shew him Hecatombæon 1, B. C. 426. The correction therefore required in this instance is simply that of setting forward his name, from Hecatombæon 1, B. C. 426, to Gamelion 1, B. C. 425; six months later. And so on, with every other name upwards from his, to that of Apseudes; which the tables

An extract from the Chronology of Julius Africanus has been preserved by Syncellus[r]; from which we learn the entire number of archontic names recorded in the Fasti at Athens, from the first annual archon to the one contemporary with Africanus himself. The first annual archon was Creon: Ἀφ’ οὗ, continued Africanus, *ἐπὶ σν′ Ὀλυμπιάδα ἄρχοντες ϡγ′* (903), *μέχρι Φιλίνου, καθ’ ὃν ὑπάτευον Γράτος Σαβινιανὸς Ῥωμαίων καὶ Σέλευκος, ἀπὸ τῶν περὶ Βροῦττον μετὰ τοὺς βασιλεῖς ὑπατευσάντων ψκε′ καταριθμούμενοι . . . ὅπερ ἦν Ἀντωνείνου τοῦ καὶ Αὐγέντου* (Ἀδουέντου) *ἔτος γ′*.[s]

The name of Adventus is here associated with that of Antoninus (Heliogabalus), because he was consul along with him

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shew Hecatombæon 1, B. C. 433; though he must really have come into office six months later, Gamelion 1, B. C. 432.

This kind of correction however will not serve in every instance from Apseudes upwards. Take for example the year of Marathon, B. C. 490. If Phænippus was really the archon of that year, he must have come into office Gamelion 1, B. C. 490; yet the tables shew him Hecatombæon 1, B. C. 490. The correction required in *this* instance therefore is that of setting *back* this name six months, not *forward* six months. And so with the archon of the year of Salamis, and that of the year of Platæa, if those were really Calliades and Xanthippus respectively. We cannot help suspecting that the arrangements of the modern tables in these three cases are not consistent with their own principles; but have been affected by the previous knowledge of the true years of Marathon, Salamis, and Platæa, otherwise obtained, B. C. 490, 480, and 479 respectively. To have been consistent, their arrangements should have been the same with those of the Parian marble; in which Phænippus is the archon of B. C. 491, Calliades of B. C. 481, and Xanthippus of B. C. 479: and to each of which, the simple correction, which we began with pointing out, would have been strictly and properly applicable; all that would have been necessary in that case being to have advanced the name of Phænippus from Hecatombæon 1, B. C. 491, to Gamelion 1, B. C. 490, and so with the other two.

[r] 400. l. 6 B–C. Cf. the Reliquiæ Sacræ, ii. 173: Africani Chronicon, xxxix.

[s] Cf. of Africanus, Photii Bibl. Cod. 34. pag. 7. l. 6. *Οὗτός ἐστιν ὁ καὶ τοὺς λεγομένους κεστοὺς ἐν λόγοις συντάξας ιδ′* (see our Origines Kal. Italicæ, iv. 259, 260). From the Mosaic creation to the reign of Macrinus (A. D. 218) his chronology comprehended 5723 years: *Ὅτε αὐτῷ, ὥς φησι, καὶ ἥδε ἡ συγγραφὴ συνετελεῖτο, ἐτῶν οὖσα ,εψκγ′· τεύχη δὲ τὸ βιβλίον πέντε.*

in the first year of his reign, June 8 A. D. 218 U. C. 971. The third year of Antoninus Hel. began June 8 A. D. 220 U. C. 973, and extended down to June 8 A. D. 221 U. C. 974—which was also the consular year of Gratus and Seleucus, dated from January 1 U. C. 974. The archontic year of Philinus then, which bore date in *this* third year, must have begun either Hecatombæon 1, or Boëdromion 1, A. D. 220: and this was also the first year of the celth Olympiad, dated from midsummer, A. D. 221, as well as in the sense in which the term Olympiad was used by Africanus; that viz. of the cycle of the Julian leap-year[t].

Now though there is a various reading in the number of archons, ϡκγ' for ϡγ', we will assume that the latter is the true reading[v]. The date then of the archonship of Philinus being A. D. 220 A. M. 4224, that of the first of the series, the 904th before him, must have been A. M. 3321 B. C. 684. The date of this first archonship on the Parian Marble, Epocha xxxiii, is 420 years before its own date, B.C. 264, (and these numbers are still entire;) i. e. B. C. 684 also. This is a remarkable coincidence; and does much to confirm the soundness of the reading in the text of Syncellus at present. On the supposition however that even in this number there was one more archontic name than there could have been archontic years; the true date of the first of the series must have been B. C. 683—Gamelion 1 B. C. 683 instead of Hecatombæon 1 B. C. 684.

## SECTION VI.—*On the date of the birth and of the death of Plato, and on his age at his death.*

The chronology of the life and the death of Socrates furnished us with one illustration of the error liable to be the consequence of reckoning intervals of time from any date after B. C. 425 to any date before it, merely by the succession of archons; and that of the life and death of Plato will probably supply another.

It is agreed that Plato was born on the seventh of Thargelion: Καὶ γίνεται Πλάτων, ὥς φησιν Ἀπολλόδωρος ἐν Χρονικοῖς, . . . . Θαργηλιῶνος ἑβδόμῃ καθ' ἣν Δήλιοι τὸν Ἀπόλλωνα γενέσθαι φασίν [x]: and it is agreed that he died on his birthday [y]: so that he must have lived an even number of years, from his first birthday to his last, exactly. The question is, How many?

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[t] See our Dissertations on the Principles and Arrangements of an Harmony of the Gospels, i. 273 note: 467, 468 note.

[v] Cf. Corsini, Fasti Attici, iv. 187. A. D. 221.

The answer to this question is differently represented. 80 years, according to Ælian [z], and Dionysius of Halicarnassus [a], and Jerome in Chronico [b]: 81, according to Cicero [c], to Hermippus [d], to Censorinus [e], to Seneca [f], to Lucian [g], to Augustin [h]: 82, according to Valerius Maximus [i], to Suidas [k], to Athenæus [l]: 84 according to Neanthes [m].

The year of his birth too is differently represented: by Apollodorus, ἐν Χρονικοῖς [m], and Suidas [k], Ol. lxxxviii: by Hippolytus [o], Ol. lxxxviii. 1: by Jerome [b], Ol. lxxxviii. 4, B. C. 128–124: by Diogenes Laertius [n], Ἐπ' Ἀμεινίου (Ἐπαμείνων), the year in which Pericles died [p], B. C. 429 according to the common arrangement, B. C. 428 according to the truth; by Athenæus [l], Ἐπὶ Ἀπολλοδώρου, B. C. 430 of the usual arrangement, B. C. 429 by the corrected one.

In the year of his death there is less variation: Ol. cviii according to Hermippus [y] and Diogenes himself [q], and Suidas [k] and Jerome [b], B. C. 348–347: Ἐπὶ Θεοφίλου, B. C. 348–347 also, according to Dionysius of Halicarnassus [r], and Athenæus [l]: a date confirmed by Diogenes [s], in his Life of Speusippus, who succeeded Plato as the head of the academy in that year. To these we may add the testimony of Plutarch, who dates his death in the year of the archon under whom Olynthus was reduced by Philip of Macedon [t]; that is, Theophilus also [v]: and this date is virtually confirmed by another of Diogenes' [x], which places it in the 13th of Philip of Macedon: for, as Philip began to reign in the year of Callimedes [y], B.C. 360–359, B.C. 348–347 must have answered to the 13th year of his reign.

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[x] Diogenes Laertius, iii. cap. i. ii. § 2. Vita Platonis: cf. Plutarch, Symposiaca, viii. i. 1–3.

[y] According to Hermippus, apud Diogen. loco citato, Ἐν γάμοις δειπνῶν. cf. Suidas in Πλάτων.

[z] Variæ, iii. 19.

[a] De Compositione, 208. 11.

[b] Thes. Tempor. Ol. lxxxviii. 4: Ol. cviii. 4. cf. Euseb. Chron. Arm. Lat. Olymp. lxxxix. 1.

[c] De Senectute, 5, 13

[d] Apud Diogen. Laertium, iii. cap. i. § 2.

[e] De Die Natali, xv.

[f] Opp. ii. Epp. lviii. 27.

[g] Opp. iii. 223. Macrobii, 21.

[h] De Civitate, viii. 11. 235.

[i] viii. vii. De Studiis et indole Externa, § 3.

[k] Πλάτων.

[l] v. 57.

[m] Apud Diogen. Laertium, iii. § 2.

[n] Ibid. iii. § 3.

[o] Φιλοσοφούμενα, i. 15. 7.

[p] Thucyd. ii. 65.

[q] v. cap. i. § 9. 10. Aristotle.

[r] Ad Ammæum, § 5: 727. 7—728. 15. cf. Diogenes Laertius, iii. cap. i. xxix. 40.

[s] iv. i. § iii. cf. Suidas, Σπεύσιππος.

[t] Decem oratores, Demosthenes, v. 158.

As these authorities therefore are nearly agreed in the date of the death, whether Ol. cviii. 1 or Ἐπὶ Θεοφίλου, B. C. 348–347, it is most probable that Plato actually died in that year: and if he died on his birthday, it must have been on the 7th of Thargelion, B. C. 347—not on the same day, B. C. 348; since the former only could have come in the year of Theophilus. This year corresponded to Period ii. 9. Cycle v. 9 of the Metonic calendar; and the 6th of Thargelion, by a singular coincidence, having been exemtile, the 7th fell on what would otherwise have been the Julian date of the 6th, May 15 B. C. 347: and the birthday of Socrates that year [z] and the birthday of Plato must have been kept on the same day.

The date of the death of Plato then may be assumed Thargelion 7 Cycle v. 9 May 15 B. C. 347. With respect to the date of his birth; let us first consider what Seneca has said about the circumstances of his death [a]: Plato ipse ad senectutem se diligentia pertulit. erat quidem corpus validum ac forte sortitus, et illi nomen latitudo pectoris fecerat . . . nam hoc scis puto, Platoni diligentiæ suæ beneficio contigisse quod natali suo decessit, et annum unum atque octogesimum implevit sine ulla deductione. ideo Magi qui forte Athenis erant immolaverunt defuncto, amplioris fuisse sortis quam humanæ rati, quia consummasset perfectissimum numerum, quem novem novies multiplicata componunt. This is a very express and particular account, and has all the appearance of truth: and as this length of the life of Plato is corroborated by the majority of testimonies, quoted supra, we may assume that such was his precise age at his death. Consequently, if he died on his birthday, Thargelion 7 B. C. 347, he must have been born Thargelion 7 B. C. 428.

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[v] Diodor. xvi. 53. Dionys. Hal. ad Ammæum, x. 736. 13.

[x] iii. i. § 29. 110.

[y] Diodor. Sic. xvi. 2.

[z] Cf. supra, Diss. i. ch v. viii 167. vol. i. 190.

[a] Opp. ii. Epp. lviii. 27.

Now Thargelion 7, B. C. 428, actually came in the year of Epameinon, corrected from Hecatombæon 1, B. C. 429, to Gamelion 1, B. C. 428. Yet Athenæus is positive that Plato was born in the year of Apollodorus, who preceded Epameinon: *Πλάτων δὲ γεννᾶται,* says he[b], *ἐπὶ 'Απολλοδώρου, τοῦ μετ' Εὐθύδημον ἄρξαντος· δύο δὲ καὶ ὀγδοήκοντα βιώσας ἔτη μετήλλαξεν ἐπὶ Θεοφίλου τοῦ μετὰ Καλλίμαχον, ὅς ἐστιν ὀγδοηκοστὸς καὶ δεύτερος* (*ἄρχων*): and Neanthes, apud Diogenem[c], made him even 84 years old at his death. This statement indeed must be set aside. But how shall we account for that of Athenæus, in which Valerius Maximus and Suidas also agree? The explanation most probably is, that though there were only 81 years from Thargelion 7, B. C. 428, to Thargelion 7, B. C. 347, there were 82 archons*.

The seventh of Thargelion, B. C. 428, by the old calendar, was May 7. The ancients have reported that a swarm of bees settled on the lips of Plato—if not on the very day of his birth, yet soon after his birth. At Platoni, cum in cunis parvulo dormienti apes in labellis consedissent[d]—Sedere in ore infantis tum etiam Platonis, suavitatem illam prædulcis eloquii portendentes[e].

Præterea si vera fides, sed vera probatur,
Lata cohors apium subito per rura jacentis
Labra favis texit, dulces fusura loquelas.
Hoc quondam in sacro tantum mirata Platone
Indicium linguæ memorat famosa vetustas[f].

We mention this tradition merely to remind the reader that the Πλειάδων ἐπιτολή, May 7, in the Metonic calendar, Plato's birthday, B. C. 428, was the usual time when the hives were first filled with honey, and bees were observed to swarm in Greece[g].

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* It is also asserted by Athenæus, v. 57, that Plato was fourteen years of age when Agatho's victory at the Lenæa *ἐπὶ Εὐφήμου* was won; i. e. Anthesterion 11–13, March 2–4, B. C. 416. If he was born Thargelion 7, B. C. 428, he could have been only 12 years old complete Thargelion 7, B. C. 416, or 13 current after it. But in this space of time too, there would be 13 archons, from Epameinon inclusive to Euphemus inclusive; so that he might appear to be 14 after Thargelion 7, B. C. 416.

[b] v. 57.

[c] iii. § 3.

[d] Cicero, De Divinatione, i. 36, 78. cf. ii. 34, 66.

[e] Pliny, H. N. xi. 18. cf. Valerius Max. i. vi. De Prodigiis, externa, 3. Ælian, Variæ, x. 21 : xii. 45.

[f] Phocas, Vita Vergilii. cf. our Origines Kal. Italicæ, iii. 316. The same occurrence however has been handed down of Pindar also.

## CHAPTER V.

### *On the Callippic Correction of the Metonic Cycle.*

### SECTION I.—*On the discovery of the Correction required by the Metonic cycle; and on the time and circumstances at which and under which it was likely to be applied to it.*

The error involved in the assumptions of the Metonic cycle, which would infallibly, in the course of time, require some correction of it, has been explained; yet, as the effect of this error would not be more than a day and a night in excess in seventy six years, it may reasonably be doubted whether, if left to be discovered from the visible anticipation of the true new moons on those of the calendar, it would have been detected by the common people even at the end of that time. And though a scientific astronomer, who was acquainted with the theory of the system of Meton, and with the proportion of the standard of his mean solar year to that of the mean Julian, would not have had to discover the error involved in his assumptions, merely from observation, it may still be questioned whether even he would think of applying a correction to it, before a certain time. It is to be presumed, that the correction would be administered under such circumstances, that the corrected calendar might take up and continue the old, and both begin and proceed in all other respects uniformly with it. And it certainly tends to confirm this presumption, that, if the proper date of the calendar of Meton is assumed to have been that of its reception into public use, B. C. 425, not that of its first publication, B. C. 432, the Callippic correction is found to have taken its rise 95 years, or five cycles of nineteen years, after that date, exactly.

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[g] Cf. supra, Diss. i. ch. v. ii. vol. i. 156 note.

## SECTION II.—*On the epoch of the Callippic Correction.*

### i. Of the year of the Æra Vulgaris, or Before Christ, in which it was made.

This question however of the epoch of the Callippic Correction is one on which we have not yet formally entered, though something has been said of it generally; and we must now proceed to consider it more particularly. There are two points connected with it, each of which will require to be substantiated by the proper proofs. *One,* that of the year before Christ in which the correction was first made public; the *other,* that of the month and the day in that year, in which and on which it took its rise.

We have already observed[a] that the only data extant at present, by means of which either of these points can be determined, are found in the Magna Compositio of Ptolemy; and as all the dates, which occur in that work, were collected and digested under their proper heads, in our Fasti Catholici[b], we shall begin with extracting from that collection such of them as are calculated to assist us in the determination of the first of the above points, that of the proper year of the Callippic Correction. These are those which are given in the Magna Compositio, in terms of the æra of the Callippic Period, and of that of Nabonassar, in conjunction.

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[a] Supra, Diss. iii. ch. iv. iv. page 22, 23.

[b] Vol. ii. 409—418.

*Dates of the* Magna Compositio, *in terms of the Æra of the Callippic Period, and of the Æra of Nabonassar, and of the Æra Vulgaris, or Before Christ, respectively.*

| Callippic Æra. | | Æra of Nab. | | | h. | m. | B.C. | | h. | m. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Per. i. | 36[c] | 454 | Phaophi | 17 | 9 | 24* | 295 | Dec. 21 | 3 | 24 | A.M. |
| — | 36[d] | 454 | Tybi | 6 | 2 | | 294 | Mar. 9 | 8 | | P.M. |
| — | 47[e] | 465 | Athyr | 30 | 2 | 40 | 283 | Jan. 29 | 8 | 40 | P.M. |
| — | 48[f] | 466 | Thoth | 8 | 9 | 7 30 | 283 | Nov. 9 | 3 | 7 30 | A.M. |
| — | 50[g] | 468 | Pharmuthi | 29 | 7 | | 280 | June 27 | 1 | | A.M. |
| Per. ii. | 54[h] | 547 | Mesore | 17 | 1 | | 201 | Sep. 22 | 7 | | P.M. |
| — | 55[i] | 548 | Mesore | 6 | 8 | 15 | 200 | Sep. 12 | 2 | 15 | A.M. |
| Per. iii. | 17[k] | 586 | Epag. | 1 | 0 | | 162 | Sep. 27 | 6 | | P.M. |
| — | 20[l] | 589 | Epag. | 1 | 11 | | 159 | Sep. 27 | 5 | | A.M. |
| — | 21[m] | 590 | Epag. | 1 | 18 | | 158 | Sep. 27 | 0 | | P.M. |
| — | 32[n] | 602 | Mecheir | 27 | 11 | | 146 | Mar. 24 | 5 | | A.M. |
| — | 37[o] | 607 | Tybi | 3 | 4 | 10 | 141 | Jan. 27 | 10 | 10 | P.M. |
| — | 43[p] | 613 | Mecheir | 30 | 6 | | 135 | Mar. 24 | 0 | | A.M. |
| — | 43[q] | 613 | Paüni | 4 | 19 | | 135 | June 26 | 1 | | P.M. |
| — | 50[r] | 620 | Phamenoth | 2 | 0 | | 128 | Mar. 23 | 6 | | P.M. |

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* In these Egyptian dates the hours are reckoned from sunset, or 6 P.M. of mean time.

[c] Fasti Cath. ii. 413. Lunar observations, i.
[d] Ibid. Ibid. ii.
[e] Ibid. Ibid. iii.
[f] Ibid. Ibid. iv.
[g] Ibid. ii. 409. Summer solstices, ii.
[h] Ibid. ii. 412. Lunar eclipses, xi.
[i] Ibid. Ibid. xiii.
[k] Ibid. ii. 410. Autumnal equinoxes, i.
[l] Ibid. Ibid. ii.
[m] Ibid. Ibid. iii.
[n] Ibid. ii. 409. Vernal equinoxes, i.
[o] Ibid. ii. 412. Lunar eclipses, xv.
[p] Ibid. ii. 410. Vernal equinoxes, ii.
[q] Ibid. ii. 409. Summer solstices, iii.
[r] Ibid. ii. 410. Vernal equinoxes, iii.

From any one of these years the epoch of the first year of the first period is determinable to B. C. 330, Nab. 418, with this distinction only, that if the Julian date, corresponding to the Egyptian one, as assigned in this list, falls between midsummer and the end of the year, the given year of the Callippic Period must be understood of that year *ineunte*, or current and incomplete; if between the beginning of the year and midsummer, it must be understood of the same year *exeunte*, or, though still current, yet nearly complete; the most remarkable instance of which is that of Period i. 50, the date of the summer solstice observed by Aristarchus, June 27, B. C. 280; and that of iii. 43, June 26, B. C. 135, the solstice observed by Hipparchus: to both which we had occasion to refer before[s].

Besides these dates however, the reduction of each of which gives the epoch of the correction in terms of the Æra Vulgaris, B. C. 330, and therefore correctly; five others occur, the reduction of which, as they stand in the text of the Compositio at present, in the same manner as that of those produced above, would give the first year of the Callippic Æra, B. C. 331, or B. C. 329, not B. C. 330: which consequently we must suppose to be one year in excess or in defect of the truth, and to require to be corrected accordingly. These five dates are the following:—

| Period. | Nab. | | | h. | m. | B. C. | | h. | m. | |
|---|---|---|---|---|---|---|---|---|---|---|
| ii. [t]55 (corr. 54) | 548 | Mecheir | 10 | 7 | 20 | 200 | Mar. 20 | 1 | 20 | A. M. |
| iii. [v]32 (corr. 33) | 602 | Epagomene | 4 | 6 | | 146 | Sept. 27 | 0 | | A. M. |
| — [x]33 (corr. 34) | 603 | Epagomene | 4 | 12 | | 145 | Sept. 26 | 6 | | A. M. |
| — [y]36 (corr. 37) | 606 | Epagomene | 5 | 0 | | 142 | Sept. 26 | 6 | | P. M. |
| — [z]52 (corr. 51) | 620 | Epiphi | 16 | 11 | 30 | 128 | Aug. 5 | 5 | 30 | A. M. |

## ii. Of the day of the month, B. C. 330, on which it took its rise.

The calendar of Meton consisted of a solar as well as a lunar Parapegma; and there is no doubt that the calendar of Callippus did so too. And as the epochs of these respectively were distinct in the former, so no doubt were they in the latter. To judge from the account which Geminus has given of each of these solar Parapegmata, there does not seem to have been any difference between them. The cardinal points at least in both must have been the same. And as that of Meton bore date from the summer solstice, so did that of Callippus from the first of Karkinon; which was only another name for the summer solstice. And as Meton's date of the summer solstice was June 27, so Callippus' date of the first of Karkinon was June 27 also. The fixed and invariable epoch of each of these Parapegmata must have been the summer solstice. And that is confirmed by the fact, (to which we had occasion to appeal before[a] in illustration of the same conclusion,) that both the solstice observed by Aristarchus, 152 years after that of Meton, and the solstice observed by Hipparchus, 145 years after that of Aristarchus, were dated alike in the proper year of the Callippic æra *exeunte;* the former Period i. 50 *exeunte*, the latter Period iii. 43 *exeunte:* yet the former June 27 at midnight, B. C. 280, the latter June 26 at noon, B. C. 135. It follows that every solar year in the Callippic cycle (as every one in the cycle of Meton also did) bore date at the summer solstice, and on the same Julian date of the summer solstice, June 27. And consequently if it took its rise at midsummer, B. C. 330, its proper solar date was June 27, B. C. 330.

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[s] Diss. iii. ch. i. v. vol. i. page 450.

[t] Fasti Cath. ii. 412. Lunar eclipses, xii.

[v] Ibid. ii. 410. Autumnal equinoxes, iv.

[x] Ibid. — Ibid. v.

[y] Ibid. — Ibid. vi.

[z] Ibid. ii. 413. Lunar observations, v.

With regard to any other kind of calendar, combined with this solar one, in the Parapegma of Callippus, analogous to the lunar one, combined with the solar calendar of Meton: lunar dates are extant in terms of the Callippic æra, from the analysis of which it appears that two forms of the lunar reckoning must have come into existence in the same year, B. C. 330, and at the same time of the year, midsummer, each of them subject to the principles of a correction exactly the same with the Callippic: but one of them on June 28 at 6 P. M. reckoned by the Attic rule, June 29 at midnight according to the Julian; the other June 30 at 6 P. M. according to the former, July 1 at midnight according to the latter. One of these epochs however (that of June 30 at 6 P. M. or

[a] Diss. iii. ch. i. v. vol. i. page 450.

July 1 at midnight), on examination, is seen to have been neither more nor less than that of the current year of the Metonic cycle, Cycle vi. 8, Hecatombæon 1, June 30 at 6 P. M. or July 1 at midnight also. And as to the other, forasmuch as it is *prima facie* two days earlier than this, but in other respects the same with it, the first and most obvious conclusion concerning it is that this too was probably the epoch of the current year of the Metonic cycle simply corrected, in the manner and to the degree which at that time might be required by the circumstances of the case.

Now there can be no doubt that, according to its own principles, at the distance of 102 years from the epoch of its own decursus, during which it had gone on without correction, it must already have accumulated an error of excess, amounting to one day complete at least. There is no doubt consequently that the epoch of the 103rd year, Cycle vi. 8, Hecatombæon 1, required to be reduced from June 30 at 6 P. M. or July 1 at midnight B. C. 330, to June 29 at 6 P. M. or June 30 at midnight; and therefore, if the lunar epoch of the Callippic correction, properly so called, was purposely assumed at this time June 28 at 6 P. M. or June 29 at midnight, it might have been taken from the lunar epoch of the current year of the vulgar Metonic cycle, simply corrected to some extent or other.

The amount of the correction indeed, required at this time, it might be supposed, could not have been more than one day complete; whereas, if Callippus took his lunar epoch from the corresponding one of the Metonic cycle, he must have applied to it a correction of two days: assuming it actually June 28 at sunset, or June 29 at midnight, instead of June 29 at sunset, June 30 at midnight. But in explanation of this it is to be observed, that the date of his correction, in the decursus of the Metonic calendar, having been Cycle vi. 8, the epoch of that year in the vulgar cycle was *per accidens* one day more in excess than, even on the principles of the Callippic period and Callippic correction itself, at that period of its decursus, it ought to have been; the reason of which was that the seventh year of the Metonic cycle by rule had only five exemtile days instead of six, and the last two months of that year were both alike full months.

The epoch therefore of the 8th year in every cycle being necessarily one day higher than the truth, the epoch of the 8th year of the *sixth* cycle would be two days higher than the truth; and Callippus, in assuming the epoch of the current year, to adapt it to that of his own correction, would have to allow not only for the excess accumulated in the decursus of the first four cycles or 76 years in general, but also for that of the seventh year of the sixth cycle in particular: and consequently to reduce the epoch of the current year not from June 30 at 6 P. M. or July 1 at midn. to June 29 at 6 P. M. or June 30 at midn., but to June 28 at 6 P. M. or June 29 at midnight. That *this* was *de facto* the amount of the correction required by the Metonic calendar at this time, and that nothing less than *this* could have reduced it again to the same agreement with the moon, as at first, is demonstrable from calculation at present; and might have been known to Callippus at the time from observation also*.

With regard to the other lunar calendar, which took its rise exactly at the same time as this; it appears to have had no object except that of simply applying the principle of the Callippic correction to the Metonic calendar of the time being, from that time forward. It assumed therefore the epoch of the vulgar Metonic cycle, Hecatombæon 1, Cycle vi. 8, as its own, without any preliminary correction; providing merely for its fixation ever after—so as not to advance beyond the limits thus prescribed to it, in the same years of the cycle at least. The perpetual epoch of this calendar was consequently June 30 at 6 P. M. or July 1 at midnight; as that of the Callippic, properly so called, was June 28 at 6 P. M. or June 29 at midnight. There was two days' difference between them at first; and there would be the same, at corresponding points of the decursus of each, ever after.

The latter of these calendars, which was so much the truer to the moon, chronologers are agreed in ascribing to Callippus. The author of the former is doubtful. Perhaps how-

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|  | B. C. 330. |  | h. | m. | s. |  |
|---|---|---|---|---|---|---|
| * | Mean new moon | June 28 | 13 | 29 | 40 | m. t. Greenwich. |
|  |  | June 28 | 15 | 4 | 36 | m. t. Athens. |
|  | True new moon | June 28 | 1 | 58 | 36 | m. t. Greenwich. |
|  |  | June 28 | 3 | 33 | 32 | m. t. Athens. |

ever we shall not be mistaken, if we attribute it to Timocharis; or though his right to the authorship of it should be considered questionable, (and the earliest date on record in terms of this correction is 35 years later than its epoch,) still, in our future references to it, we may be allowed to call it by his name: for he certainly made use of it, and almost all the observations which Ptolemy has recorded after him are dated by it; though he was not ignorant, as we hope to see by and by, either of the calendar of Meton, or of the Callippic correction thereof.

### SECTION III.—*On the intercalary rule of the Callippic Correction, and its relation to that of the Cycle of Meton.*

We were told by Geminus[b], that Callippus retained the intercalary rule of the cycle of Meton. Consequently the same seven years were intercalary in his cycle as in the Metonic: and the seat of the intercalary month, as often as it came in, was the same in each. And what held good in this respect of the correction of Callippus, held good of that of Timocharis also. But as each of these latter cycles took its rise in the 8th year of the current Metonic cycle, not in the first, and that year in the Metonic cycle by rule was intercalary, there was necessarily a difference between each of them, and the vulgar Metonic cycle, from the first, amounting to *this;* that the first year of each of these was a common one, the corresponding one of the Metonic was an intercalary one; the third year of each of these would be intercalary, the corresponding year of the Metonic would be a common one: and so on, with the rest of the intercalary years in each, and the corresponding ones of the other; after the manner exhibited in the annexed scheme.

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[b] Supra, Diss. iii. ch. ii. viii. vol. i. page 510: cf. p. 517.

*Scheme of the Intercalary years in the cycle of the Callippic Correction, compared with those of the cycle of Meton.*

| Callippic. | | Metonic. | |
|---|---|---|---|
| Cycle i. | i. | Cycle i. | *viii. |
| | ii. | | ix. |
| | *iii. | | x. |
| | iv. | | *xi. |
| | *v. | | xii. |
| | vi. | | *xiii. |
| | vii. | | xiv. |
| | *viii. | | xv. |
| | ix. | | *xvi. |
| | x. | | xvii. |
| | *xi. | | xviii. |
| | xii. | | *xix. |
| | *xiii. | Cycle ii. | i. |
| | xiv. | | ii. |
| | xv. | | *iii. |
| | *xvi. | | iv. |
| | xvii. | | *v. |
| | xviii. | | vi. |
| | *xix. | | vii. |

It would be a necessary consequence of this difference, that though the names and order of the months in each of these Corrections might be the same with those of the months in the Metonic calendar, in every year alike; the epochs of the months in the former, in certain years, would be liable to differ from those of the months in the latter, by as much as thirty days: a circumstance of distinction, to which, as we shall see hereafter, attention should by all means be paid, in comparing dates taken from either of these, with the corresponding ones of the Metonic calendar.

The result of these premises is, that the proper epoch of the lunar cycle of Callippus was Hecatombæon 1, June 28, at 6 P. M., according to the Attic reckoning, B. C. 330, the corrected date of the current year of the Metonic cycle, Period ii. 27. Cycle vi. 8: that of the similar cycle of Timocharis was Hecatombæon 1, June 30, at 6 P. M., the date of the current year of the Metonic cycle itself. Having these data given, we have no difficulty in constructing two schemes of four Metonic cycles, or one period of seventy-six years, respectively: which, by simply applying to the last year in each the principle of the Callippic correction, as often as it might be required, would be competent to serve as the perpetual type or exemplar, one of the Callippic calendar, the other of that of Timocharis: and such schemes will be found constructed and incorporated with the rest of the Tables, which accompany this part of our Work*. It remains to substantiate the truth of each, by the actual testimony of dates; which can be explained and verified only by means of one or other of them. To this proof therefore we shall proceed, beginning with the calendar of Callippus.

## SECTION IV.—*On the Verification of the Callippic Correction by actual dates.*

i. Lunar eclipse, observed by Hipparchus at Alexandria, Call. Per. ii. 54[c]. Mesore 16: *Καθ' ἣν ἤρξατο μὲν ἐκλείπειν ἡ σελήνη πρὸ ἡμιωρίου τῆς ἀνατολῆς, ἔσχατον δὲ ἀνεπληρώθη τρίτης ὥρας μέσης.*

| | | | h. | m. |
|---|---|---|---|---|
| Mean time according to Ptolemy, | | Mesore 16 | 7 | 0 |
| Distance from the epoch, or Nab. 1. Thoth 1. at noon. | | 546 y. 345 d. | 7 | 0 |
| That is, to | Nab. 1 | Thoth 1 | 0 | 0 |
| Add | 546 | 345 | 7 | 0 |
| | 547 | 346 | 7 | 0 |
| Cast off | | 330 | | |
| Date of the eclipse, | Nab. 547 | Mesore 16 | 7 | 0 |

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* Vol. iii. Appendix, Table viii. and Table ix. The Lunar standard of Callippus has not been handed down in so many words. It may be obtained however from the division of the number of days contained in one of his periods by the number of months. The number of days was 27 759, the number of months was 940; and the quotient of the former divided by the latter is,

29 d. 12 h. 44 m. 25·532 s.

Such consequently, according to the principles and assumptions on which his lunar period was constructed and digested, must have been its proper mean lunar standard. The Metonic standard similarly obtained, as we have seen, (supra, Diss. iii. ch. ii. iii. i. vol. i. page 483,) was 29 d. 12 h. 45 m. 57·4468 s., 1 m. 31·915 sec. greater even than the Callippic.

[c] Magna Compositio, iv. x. Opp. i. 279.

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| Hence, | | | | | | | |
| B.C. 202 October | 13 | 0 | 0 | Nab. 547 Thoth | 1 | 0 | 0 |
| Add | 345 | 7 | 0 | Add | 345 | 7 | 0 |
| | 358 | 7 | 0 | | 346 | 7 | 0 |
| Cast off | 336 | 0 | | Cast off | 330 | | |
| B.C. 201 Sept. | 22 | 7 | 0 P.M. | Nab. 547 Mesore | 16 | 7 | 0 from noon[d]. |

With regard to the Callippic date of this eclipse,

Period ii. 54, B.C. 201, Hecatombæon 1, June 11, 6 P.M.
Cavus Pyanepsion, September 8, 6 P.M. Ex. 30.

| | | | | | m. | s. |
|---|---|---|---|---|---|---|
| Hence, | September 8 | 6 P.M. | Pyanepsion | 1 | 0 | 0 |
| | Add 14 | 1 | Add | 14 | 1 | 0 |
| | September 22 | 7 P.M. | Pyanepsion | 15 | 1 | 0 |

The date therefore by this calendar was Pyanepsion 15 at one hour. By that of Timocharis, September 22 at 7 P.M. B.C. 201 answered to Pyanepsion 13 at one hour. Hence, though the calendar of Callippus has not been quoted in connection with this date, yet it is manifest that the specified time of the eclipse must have agreed much more exactly with the corresponding lunar date according to it, than according to that of Timocharis; and much less according to that of Meton, Period iv. 4, Cycle xiii. 4, when September 22 at 7 P.M. coincided with Boëdromion 12 at one hour.

ii. Lunar eclipse observed by Hipparchus, Period ii. (55) 54: Mecheir 9. *Ἤρξατο δὲ τῆς νυκτὸς, προελθουσῶν ὡρῶν ε′ καὶ τριτημορίου, καὶ ἐξέλιπεν ὅλη*[e].

| | | | | | h. | m. |
|---|---|---|---|---|---|---|
| Middle of the eclipse | | | Mecheir | 9 | 13 | 20 |
| Radical distance | | | 547 y. | 158 | 13 | 20 |
| That is, to | Nab. | 1 | Thoth | 1 | 0 | 0 |
| | Add | 547 | | 158 | 13 | 20* |
| | | 548 | | 159 | 13 | 20 |
| | | | Cast off | 150 | | |
| Date of the eclipse, | Nab. | 548 | Mecheir | 9 | 13 | 20 |

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[d] Cf. the Introduction to the Tables of the Fasti Catholici, Part iii. ch. ii. sect. iii. p. 292. vi. No. xi.

| | y. | d. | h. | m. |
|---|---|---|---|---|
| * The radical distance of the former eclipse was stated at | 546 | 345 | 7 | 0 |
| Distance between the two eclipses, stated at .. | | 178 | 6 | 45 |
| Radical distance of the second .. .. .. | 547 | 158 | 13 | 45 |

[e] Magna Compositio, iv. x. Opp. i. 280.

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. 201 Oct. | 12 | 0 | 0 | Nab. 548 Thoth | 1 | 0 | 0 |
| Add | 158 | 13 | 20 | Add | 158 | 13 | 20 |
| | 170 | 13 | 20 | | 159 | 13 | 20 |
| Cast off | 151 | | | Cast off | 150 | | |
| B. C. 200 Mar. | 19 | 13 | 20[f] | Nab. 548 Mecheir | 9 | 13 | 20 |
| = Mar. | 20 | 1 | 20 A. M. | | | | |

For the Callippic date, we have

Period ii. 54, B. C. 201, Hecatombæon 1, June 11, 6 P. M.
B. C. 200 (Plenus) Elaphebolion 1, March 4, 6 P. M.

| Hence, | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. 200 March | 4 | 6 | 0 P. M. | Elaphebolion | 1 | 0 | 0 |
| Add | 15 | 7 | 20 | Add | 15 | 7 | 20 |
| March | 20 | 1 | 20 A. M. | Elaphebolion | 16 | 7 | 20 |

By the calendar of Timocharis, Period ii. 54, we should have obtained Elaphebolion 14, 7 h. 20 m., March 20, 1 h. 20 m. A. M. By that of Meton, Period iv. 4, Cycle xiii. 4, Elaphebolion 12, 7 h. 20 m., March 20, 1 h. 20 m. A. M.

iii. Lunar eclipse observed by Hipparchus, Period ii. 55, Mesore 5[g].

| | | | | h. | m. |
|---|---|---|---|---|---|
| Middle of the eclipse | | | Mesore 5 | 14 | 15 |
| Radical distance | | | 547 y. 334 | 14 | 15 |
| That is, to | Nab. | 1 | Thoth 1 | 0 | 0 |
| | Add | 547 | 334 | 14 | 15 |
| | | 548 | 335 | 14 | 15 |
| | | | Cast off 330 | | |
| Date of the eclipse | Nab. | 548 | Mesore 5 | 14 | 15 |

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. 201 Oct. | 12 | 0 | 0 | Nab. 548 Thoth | 1 | 0 | 0 |
| Add | 334 | 14 | 15 | Add | 334 | 14 | 15 |
| | 346 | 14 | 15 | | 335 | 14 | 15 |
| Cast off | 335 | | | Cast of | 330 | | |
| B. C. 200 Sept. | 11 | 14 | 15 | Nab. 548 Mesore | 5 | 14 | 15 |
| = Sept. | 12 | 2 | 15 A. M.[h] | | | | |

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[f] Cf. the Introduction to the Tables of the Fasti Catholici, Part iii. ch. ii. sect. iii. p. 292. vi. No. xii.

[g] Magna Comp. iv. x. Opp. i. 281.

[h] See the Introduction to the Tables of the Fasti Catholici, loco citato, No. xiii.

For the Callippic date we have

| | | | |
|---|---|---|---|
| Period ii. 55, | B. C. 200, | Hecatombæon 1 | June 30, 6 P. M. |
| | (Plenus) | Boëdromion 1 | Aug. 28, 6 P. M. |

| Hence, | | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|---|
| B. C. 200 | August | 28 | 6 | 0 P. M. | Boëdromion | 1 | 0 | 0 |
| | Add | 14 | 8 | 15 | Add | 14 | 8 | 15 |
| | Sept. | 12 | 2 | 15 A. M. | Boëdromion | 15 | 8 | 15 |

By the calendar of Timocharis, Period ii. 55, B. C. 200, Boëdromion 1 = August 30, 6 P. M. By that of Meton, Period iv. 5, Cycle xiii. 5, B. C. 200, Boëdromion 1 = September 1, 6 P. M.

iv. Lunar observation of Hipparchus at Rhodes, Period iii. (52) 51 : Epiphi 16[i], Περὶ τὴν δευτέραν διχοτόμον[k], i. e. in the last quarter of the moon.

| | | | | h. | m. |
|---|---|---|---|---|---|
| Time, according to Ptolemy, | | | Epiphi 15 | 17 | 50 |
| Radical distance | | | 619 y. 314 | 17 | 50 |
| That is, to | | Nab. 1 | Thoth 1 | 0 | 0 |
| | Add | 619 | 314 | 17 | 50 |
| | | 620 | 315 | 17 | 50 |
| | | | Cast off 300 | | |
| Date of the observation | | Nab. 620 | Epiphi 15 | 17 | 50 |

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. *129 | Sept. 24 | 0 | 0 | Nab. 620 | Thoth 1 | 0 | 0 |
| Add | 314 | 17 | 50 | Add | 314 | 17 | 50 |
| | 338 | 17 | 50 | | 315 | 17 | 50 |
| Cast off | 334 | | | Cast off | 300 | | |
| B. C. 128 | Aug. 4 | 17 | 50 | Nab. 620 | Epiphi 15 | 17 | 50 |
| | = Aug. 5 | 5 | 50 A. M. | | = Epiphi 16 | 11 | 50 |
| | | | | | from sunset. | | |

For the Callippic date we have

| | | | |
|---|---|---|---|
| Period iii. 51 | B. C. 128, | Hecatombæon 1, | June 15, 6 P. M. |
| | (Cavus, Ex. 3,) | Metageitnion 1, | July 15, 6 P. M. |

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[i] Magna Compositio, v. iii. Opp. i. 295.

[k] Ibid. 295, 296. Cf. the Introduction to the Tables of the Fasti, Part i. ch. ii. sect. iii. iii. p. 118. Also Fasti Catholici, ii. 413. iii. v.

Hence,

| | | h. | m. | | | | h. | m. |
|---|---|---|---|---|---|---|---|---|
| B. C. 128 | July 15 | 6 | 0 | P. M. | Metageitnion | 1 | 0 | 0 |
| Add | 20 | 11 | 50 | | Add | 21 | 11 | 50 |
| | Aug. 5 | 5 | 50 | A. M. | Metageitnion | 21 | 11 | 50 |

By the Callippic calendar consequently at the time of the observation the moon was 21 days old. By that of Timocharis it must have been reckoned at the same time only 19 days old, and by the common Metonic calendar, Period v. 1, Cycle xvii. 1 only 17.

v. Beginning of a lunar eclipse, observed at Rhodes, Period iii. 37, Nab. 607, Τυβὶ β′ *εἰς τὴν γ′*[l] *ὥρας ϵ′ ἀρχομένης*[m]: which Ptolemy explains to have meant both at Rhodes and at Alexandria, *πρὸ δύο ὡρῶν καιρικῶν τοῦ μεσονυκτίου.*

| | y. | d. | h. | m. | |
|---|---|---|---|---|---|
| Middle of the eclipse | | | 1 | 30 | before midnight. |
| | | | 10 | 30 | from noon. |
| Radical distance | 606 | 121 | 10 | 30 | |

| | | | | | |
|---|---|---|---|---|---|
| That is, to | Nab. | 1 | Thoth 1 | 0 | 0 |
| | Add | 606 | 121 | 10 | 30 |
| | | 607 | 122 | 10 | 30 |
| | | | Cast off 120 | | |
| Date of the eclipse | Nab. | 607 | Tybi 2 | 10 | 30 |

| | | h. | m. | | | h. | m. | |
|---|---|---|---|---|---|---|---|---|
| B. C. 142 | Sept. 28 | 0 | 0 | Nab. 607 | Thoth 1 | 0 | 0 | |
| Add | 121 | 10 | 30 | | 121 | 10 | 30 | |
| | 149 | 10 | 30 | | 122 | 10 | 30 | |
| Cast off | 122 | | | Cast off | 120 | | | |
| B. C. 141 | Jan. 27 | 10 | 30[n] P. M. | Nab. 607 | Tybi 2 | 10 | 30 | fr. noon. |
| | | | | = | Tybi 3 | 4 | 30 | fr. sunset. |

For the Callippic date we have

Period iii. 37, B. C. 142, Hecatombæon 1, June 19, 6 P. M.
B. C. 141 (Plenus) Anthesterion 1, Jan. 12, 6 P. M.

| Hence, B.C. 141, | h. | m. | | | | h. | m. |
|---|---|---|---|---|---|---|---|
| January 12 | 6 | 0 | P. M. | Anthesterion | 1 | 0 | 0 |
| Add 15 | 4 | 30 | | Add | 15 | 4 | 30 |
| January 27 | 10 | 30 | P. M. | Anthesterion | 16 | 4 | 30 |

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[l] For the explanation of this phrase, see our Fasti Catholici, i. 155. vi.

[m] Magna Comp. vi. v. Opp. i. 390.

[n] Cf. the Introduction to the Tables, &c. 292. vi. No. xv.

vi. Conjunction of the moon and Pleiades, observed at Alexandria, by Timocharis. Period i. 47, Anthesterion 8, Athyr 29, *ὥρας γ′ ληγούσης*[o]: reduced by Ptolemy to Nabon. 465, Athyr 29, *κθ′ εἰς τὴν λ′, πρὸ γ′ ὡρῶν τοῦ μεσονυκτίου καιρικῶν ἰσημερινῶν δὲ γ′ καὶ γ″* (3 h. 20 m.): Athyr 29 at 8 h. 40 m. from noon.

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. 284 | Nov. 2 | 0 | 0 | Nab. 465 | Thoth 1 | 0 | 0 |
| | Add 88 | 8 | 40 | | 88 | 8 | 40 |
| | 90 | 8 | 40 | | 89 | 8 | 40 |
| | Cast off 61 | | | | Cast off 60 | | |
| B. C. 283 | Jan. 29 | 8 | 40 P. M. | | Athyr 29 | 8 | 40 |
| | | | | | = Athyr 30 | 2 | 40 |

For the Callippic date we have,

| | | | | |
|---|---|---|---|---|
| Period i. 47. | B. C. 284. | Hecatombæon 1. | June 29. | 6 P. M. |
| B. C. 283. | (Plenus.) | Anthesterion 1. | Jan. 22. | 6 P. M. |

Hence,

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. 283. | January 22 | 6 | 0 P. M. | Anthesterion | 1 | 0 | 0 |
| | Add 7 | 2 | 40 | Add | 7 | 2 | 40 |
| | January 29 | 8 | 40 P. M. | Anthesterion | 8 | 2 | 40 |

By the calendar of Timocharis, Period i. 47, B. C. 284, Hecatombæon 1 July 1 at 6 P. M. we should get Anthesterion 1 at 0 0 = January 24 at 6 P. M. B. C. 283, and Anthesterion 8 at 2 40 = January 31 at 8 40 P. M.: two days too late for the Egyptian date, Athyr 29 at 8 40 from noon, Nab. 465. This date then was certainly taken from the Callippic calendar, B. C. 284–283. The moon having been new, by this calendar, January 22, was seven days 3 hours old, by it also, at the time of this observation.

After this we meet with no more dates in the Magna Compositio which serve to verify or illustrate this calendar in particular. We shall now pass to the verification of that of Timocharis.

## SECTION V.—*On the verification of the Correction of Timocharis by actual dates.*

i. Occultation of Spica Virginis by the moon, observed at Alexandria by Timocharis, Period i. 36, Elaphebolion 15,

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[o] Magna Compositio, vii. 3. Opp. ii. 21. Cf. Fasti Catholici, ii. 413. iii. iii.

Tybi 5. *ὥρας γ′ ἀρχομένης*: which Ptolemy reduces to Nabonassar 454, *Τυβὶ ε′ εἰς τὴν ϛ′, πρὸ δ′ ὡρῶν καιρικῶν τε καὶ ἰσημερινῶν ἔγγιστα τοῦ μεσονυκτίου*[p]: i.e. Nabon. 454 Tybi 5 at 8h. from noon.

Radical distance 453y. 124d. 8h.

| | | | | | h. | m. |
|---|---|---|---|---|---|---|
| That is, to | Nab. | 1 | Thoth | 1 | 0 | 0 |
| Add | | 453 | | 124 | 8 | 0 |
| | | 454 | | 125 | 8 | 0 |
| | | | Cast off | 120 | | |
| Date of the observ., Nab. | | 454 | Tybi | 5 | 8 | 0 |
| | | | = Tybi | 6 | 2 | 0 |

| | | | h. | m. | | | | h. | m. |
|---|---|---|---|---|---|---|---|---|---|
| B. C. 295. | November | 5 | 0 | 0 | Nab. 454. | Thoth | 1 | 0 | 0 |
| | Add | 124 | 8 | 0 | | | 124 | 8 | 0 |
| | | 129 | 8 | 0 | | | 125 | 8 | 0 |
| | Cast off | 120 | | | | Cast off | 120 | | |
| B. C. 294. | March | 9 | 8 | 0 p.m. | Nab. 454. | Tybi | 5 | 8 | 0 |
| | | | | | | = Tybi | 6 | 2 | 0 |

For the Attic date, calendar of Timocharis, Period i. 36 we have,

| | | | |
|---|---|---|---|
| B. C. 295. | Hecatombæon 1 | July 2 | 6 P. M. |
| — 294. | (Plenus) Elaphebolion 1 | Feb. 23 | 6 — |

| Hence | | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|---|
| B. C. 294. | February | 23 | 6 | 0 P. M. | Elaphebolion | 1 | 0 | 0 |
| | Add | 14 | 2 | 0 | Add | 14 | 2 | 0 |
| | March | 9 | 8 | 0 P. M. | Elaphebolion | 15 | 2 | 0 |

By the Calendar of Callippus. Period i. 36, B. C. 295–294. we should have,

| | | | | |
|---|---|---|---|---|
| | Hecatombæon 1 | June 30 | 6 P. M. | B. C. 295 |
| (Plenus) | Elaphebolion 1 | Feb. 21 | 6 P. M. | B. C. 294 |

Consequently Elaphebolion 15 at 2h. = March 7 at 8 P. M.—two days too early for the Egyptian date, Tybi 6 at 2 h. Nab. 454. There can be no doubt then that this date must have been taken by Timocharis from his own correction.

ii. Occultation of the most northernly star on the forehead of Scorpio (β Scorpii or Antares[q]) observed by Timocharis at Alexandria, Period i. 36, Posideon 25 Phaophi 16, *ὥρας ι′ ἀρχούσης*[r]: reduced by Ptolemy to Nab. 454, Phaophi *ιϛ′ εἰς τὴν ιζ′*, at 15 h. 12 m. from noon; i. e. Phaophi 16 at 15 12.

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[p] Magna Compositio, vii. iii. Opp. ii. 23. cf. Fasti Catholici. ii. 413. iii. ii.

[q] Cf. Fasti Catholici, ii. 413. iii, i.

| | | | h. | m. | | | | h. | m. | |
|---|---|---|---|---|---|---|---|---|---|---|
| B. C. 295. | Nov. | 5 | 0 | 0 | Nab. 454. | Thoth | 1 | 0 | 0 | |
| | Add | 45 | 15 | 12 | | | 45 | 15 | 12 | |
| | | 50 | 15 | 12 | | | 46 | 15 | 12 | |
| | Cast off | 30 | | | | | 30 | | | |
| B. C. 295. | Dec. | 20 | 15 | 12 | Nab. 454. | Phaop. | 16 | 15 | 12 | fr. noon |
| | Dec. | 21 | 3 | 12 A. M. | | Phaop. | 17 | 9 | 12 | fr. sunset |

For the Attic date, by the calendar of Timocharis, Period i. 36, we have,

| | | | | | | |
|---|---|---|---|---|---|---|
| | Hecatombæon | 1 | July 2 | 6 | P. M. | B. C. 295. |
| (Cavus Ex. 21.) | Posideon | 1 | Nov. 27 | 6 | — | — |

Hence,

| | | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|---|
| B. C. 295. | November | 27 | 6 | 0 P. M. | = Posideon | 1 | 0 | 0 |
| | Add | 23 | 9 | 12 | | 24 | 9 | 12 |
| | December | 21 | 3 | 12 A. M. | = Posideon | 25 | 9 | 12 |

By the Callippic calendar, the same year, Posideon 1 fell two days earlier, November 25, at 6 P. M. There can be no question then that this date also must have been taken by Timocharis from his own correction. The true age of the moon however at the time of the observation would be that which was shewn by the Callippic; 25 d. 9 h. 12 m.: consequently even then not too old to have been still visible.

iii. Appulse of the moon to Spica Virginis, observed by Timocharis, Period i. 48, *Πυανεψιῶνος τῇ ϛ′ φθίνοντος* (Pyanepsion 25)[s], *τοῦ δὲ Θὼθ τῇ ζ′*, at 9 30 from sunset; reduced by Ptolemy to Nab. 466, Thoth *ζ′ εἰς τὴν η′* at 3 h. 7 m. 30 s. of equinoctial time after midnight: Nab. 466, Thoth 7, 15 h. 7 m. 30 s. from noon.

| | | | h. | m. | s. | | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B. C. 283. | Nov. | 2 | 0 | 0 | 0 | Nab. 466. | Thoth | 1 | 0 | 0 | 0 | |
| | Add | 6 | 15 | 7 | 30 | | | 6 | 15 | 7 | 30 | |
| | Nov. | 8 | 15 | 7 | 30 | | Thoth | 7 | 15 | 7 | 30 | fr. noon |
| | — | 9 | 3 | 7 | 30 A. M. | | — | 8 | 9 | 7 | 30 | fr. sunset |

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[r] Magna Compositio, vii. iii. Opp. ii. 26.

[s] Magna Compositio, vii. iii. Opp. ii. 24. cf. Fasti Catholici, ii. 413. iii. iv.

For the Attic date, calendar of Timocharis, Period i. 48, we have,

| | | | h. | m. | s. | | |
|---|---|---|---|---|---|---|---|
| | Hecatombæon 1 | June 21 | 6 | 0 | 0 | P. M. | B. C. 283. |
| (Plenus) | Pyanepsion 1 | Sept. 17 | 6 | 0 | 0 | — | — |

Hence,

| | | | h. | m. | s. | | | | h. | m. | s. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B. C. 283. | September | 17 | 6 | 0 | 0 | P. M. | = Pyanepsion | 1 | 0 | 0 | 0 |
| | Add | 24 | 9 | 7 | 30 | | | 24 | 9 | 7 | 30 |
| | October | 12 | 3 | 7 | 30 | A. M. | = Pyanepsion | 25 | 9 | 7 | 30 |

a whole month too early for the Egyptian date of the observation.

If we try the next month in this calendar the same year, Mæmacterion (Cavus, Ex. 15), we have,

| | | h. | m. | s. | | | | h. | m. | s. |
|---|---|---|---|---|---|---|---|---|---|---|
| October | 17 | 6 | 0 | 0 | P. M. | = Mæmacterion | 1 | 0 | 0 | 0 |
| Add | 23 | 9 | 7 | 30 | | | 24 | 9 | 7 | 30 |
| November | 10 | 3 | 7 | 30 | A. M. | = Mæmacterion | 25 | 9 | 7 | 30 |

still one day too late for the corresponding Egyptian date.

And as this date cannot be substantiated in the present instance by the calendar of Timocharis, much less can it be so by the calendar of Callippus; which gives Pyanepsion 25 at 9 h. 7 m. 30 s. the same year, October 10, 3 h. 7 m. 30 s. A. M., and Mæmacterion 25 at 9 h. 7 m. 30 s. November 8, 3 h. 7 m. 30 s. A. M. It is no wonder then that it has occasioned much perplexity; and has even misled some of the most learned of modern chronologers in their endeavours to explain it.

The truth is, that Timocharis, who (to judge from what has been left on record concerning him) appears to have been little solicitous about the calendar of which he made use, took this date neither from the Callippic Correction, nor yet from that which we have agreed to call by his own name, but simply from the old Metonic calendar, from which both of those had been originally derived, and which was still current in his time. That calendar (and that only) is competent to verify the date in question; as may thus be shewn.

The epoch of this calendar, as continued in use without any alteration, from B. C. 432 to B. C. 283—from Cycle i. 1, to Cycle viii. 17, (Period ii. 74,)—was falling July 19 at 6 P. M. B. C. 283, and by the law of the cycle that year, Pyanepsion was cavus, exemtile 18. We have then,

| | | h. | m. | s. | | | | h. | m. | s. | Cycle. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| October | 16 | 6 | 0 | 0 | B. C. 283. | =Pyanepsion | 1 | 0 | 0 | 0 | viii. 17. |
| Add | 23 | 9 | 7 | 30 | | | 24 | 9 | 7 | 30 | |
| November | 9 | 3 | 7 | 30 | A. M. | =Pyanepsion | 25 | 9 | 7 | 30 | |

We cannot desire a more complete explanation of the date. There can be no doubt therefore that it must have been taken, as we have said, from the vulgar Metonic reckoning of the time being. And as to its discrepancy from the same nominal date in each of the other two calendars, the Callippic and that of Timocharis; Cycle viii. 17 in the Metonic answered to Cycle iii. 10 in each of them; the former the year after an intercalation in the Metonic Cycle, the latter the year before one in each of the other two.

There was this year consequently a month's difference in the reckoning of the Metonic calendar and that of each of these respectively; Hecatombæon 1 in the former falling July 19 at 6 P. M., in the calendar of Callippus, June 19 at 6 P. M., and in that of Timocharis, June 21 at 6 P. M. Hecatombæon in the old calendar was now corresponding to Metageitnion in each of the others; and Pyanepsion in the former to Mæmacterion in the latter: and we have already seen that Mæmacterion 25 in either of them was much nearer to the Egyptian date than Pyanepsion 25, though it did not exactly coincide with it.

The date of the observation in the Callippic æra (Per. i. 48), is confirmed by a further statement, which occurs in Ptolemy[t], that it was 12 years later than the observation recorded of Period i. 36 (No. ii.). And that this lunar date of Pyanepsion 25, Per. i. 48, could not have been taken by Timocharis from the same calendar which he appears to have been using previously, may be proved by comparing the date of this observation with that which we considered sect. iv. No. vi. Period i. 47, Anthesterion 8, Athyr 29, Nab. 465, Jan. 29, B. C. 283[v]. For it is clear that both these observations, though made in different years of the Æra of Nabonassar, one Athyr 29, Nab. 465, the other Thoth 7, Nab. 466, were made in the space of the same ten months, one Jan. 29, B. C. 283, the other Nov. 9, the same year.

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[t] Magna Compositio, vii. iii. Opp. ii. 25.

[v] Page 49. Art. vi.

Now the distance between these two observations in Egyptian time must have been 283d. 6h. 27m. 30sec. exactly. as may thus be proved:—

| | | h. | m. | s. | | | d. | h. | m. | s. |
|---|---|---|---|---|---|---|---|---|---|---|
| B. C. 283. January | 29 | 8 | 40 | 0 | | Nab. 465. Athyr 29 = | 89 | 8 | 40 | 0 |
| Add | 283 | 6 | 27 | 30 | | | 283 | 6 | 27 | 30 |
| | 312 | 15 | 7 | 30 | | | 372 | 15 | 7 | 30 |
| Cast off | 304 | | | | | Cast off | 365 | | | |
| Date of the 2nd obs. | Nov. 8 | 15 | 7 | 30 | p.m. | Thoth | 7 | 15 | 7 | 30 |
| | 9 | 3 | 7 | 30 | a.m. | | 8 | 9 | 7 | 30 |

Now by the Callippic calendar, the interval in days from Anthesterion 8, Period i. 47, to Pyanepsion 25, Period i. 48, (allowance being made for four exemtile days) was 257—4 or 253 days; i. e. thirty days, or one full month, less than the corresponding interval from Athyr 29, Nab. 465, to Thoth 7, Nab. 466, or from January 29, B. C. 283, to Nov. 9 the same year. It is certain then that if the Attic date corresponding to the Egyptian in this instance had been taken either from the Callippic correction or from that of Timocharis, it must have been found given in terms of the month Mæmacterion, not of the month Pyanepsion.

We will observe then on this subject further only, that the true age of the moon, at the time of this observation, would still be that which was shewn by the Callippic correction; and according to that it would be 24d. 9h. 7m. 30sec. old, complete. For by that calendar we have—

| | | h. | m. | s. | | | h. | m. | s. | B.C. |
|---|---|---|---|---|---|---|---|---|---|---|
| Mæmacterion | 1 | 0 | 0 | 0 | Period i. 48 = Oct. | 15 | 6 | 0 | 0 | 283 |
| Add | 25 | 9 | 7 | 30 | | 24 | 9 | 7 | 30 | |
| Mæmacterion | 26 | 9 | 7 | 30 | Nov. | 9 | 3 | 7 | 30 | A. M. |

iv. There are yet three other dates, which Ptolemy has preserved, and which either were directly derived from the calendar of Timocharis, or are ultimately deducible from it: but they belong to the consideration of a different part of our subject, and therefore must be reserved for the present.

We may conclude our remarks on these two corrections of the vulgar Metonic calendar, with expressing our belief that as both originated purely with the astronomers, so both were confined to them. There is no proof any where that either this calendar of Callippus, or that of Timocharis, became the civil calendar of any Grecian community whatsoever. No date is to be met with at present, in terms of either, out of the Magna Compositio; and none is to be found there in terms of either, except in connection with some purely astronomical fact. The *principle* indeed of the Callippic correction, once having been made known, was very generally adopted, and applied to the regulation of the Metonic calendar in various instances, most of which will come under our notice hereafter. But this identical calendar itself, particular dates of which we have just been considering, was never adopted any where, except by the astronomers; not even at Athens, where it appears to have been first made public. It is certain in fact, howsoever extraordinary it may appear, and unlikely *a priori*, that at Athens in particular, where the Metonic calendar first appeared, when it had been once publicly adopted, it was never afterwards corrected. The last example is demonstrative that 18 years after the epoch of the Callippic correction itself, the original Metonic cycle was still in public use, and still identical with itself: and the review of Metonic dates, which we propose to institute in the next chapter, as low down as we have the means of tracing them, will prove in like manner that it was still identical with itself as late as the second or third century of the Christian Æra.

## SECTION VI.—*On the personal history of Callippus and Timocharis.*

It would scarcely be proper to take our leave of this subject, without some account of the personal history of the respective authors of these two corrections; though unfortunately it is but little that can be said about either, and still more so about Timocharis than about Callippus.

Callippus appears to have been a native of Kyzicus; a little younger than Eudoxus, of whom we gave some account in the first part of the present work[x], and shall have occasion to say something further in the course of this third part.

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[x] Fasti Catholici, iv. 124. sect. viii.

That is, though too young to have been the contemporary of Eudoxus himself, he was old enough to have been contemporary with those who had been his hearers and disciples; under one of whom, Polemarchus, he is said to have studied, before he resorted to Athens, and there attached himself to Aristotle. We are indebted to the Scholia on Aristotle for almost all that we know of him; especially to those of Simplicius: from which we will subjoin some of the most important of the passages, relating to him, which occur in them.

i. *Οἱ γὰρ περὶ Εὔδοξον καὶ Κάλλιππον, καὶ μέχρι τοῦ Ἀριστοτέλους*[y] *κ̀, τ. λ.*—ii. *Διέλαβον γὰρ περὶ τούτων πρὸ αὐτοῦ μὲν Εὔδοξος καὶ Κάλλιππος, μετ' αὐτὸν δὲ Πτολεμαῖος*[z]—iii. *Καὶ πρῶτος τῶν Ἑλλήνων Εὔδοξος ὁ Κνίδιος, ὡς Εὔδημός τε ἐν τῷ δευτέρῳ τῆς Ἀστρολογικῆς Ἱστορίας ἀπεμνημόνευσε, καὶ Σωσιγένης παρὰ Εὐδήμου τοῦτο λαβὼν, ἅψασθαι λέγεται τῶν τοιούτων ὑποθέσεων, Πλάτωνος, ὥς φησι Σωσιγένης, πρόβλημα τοῦτο ποιησαμένου τοῖς περὶ ταῦτα ἐσπουδακόσι, τίνων ὑποτεθεισῶν ὁμαλῶν καὶ τεταγμένων κινήσεων διασωθῇ τὰ περὶ τὰς κινήσεις τῶν πλανωμένων φαινόμενα*[a] *—iv. *Εἴρηται καὶ ὅτι πρῶτος Εὔδοξος ὁ Κνίδιος ἐπέβαλε ταῖς διὰ τῶν ἀνελιττουσῶν καλουμένων σφαιρῶν ὑποθέσεσι. Κάλλιππος δὲ ὁ Κυζικηνὸς, Πολεμάρχῳ συσχολάσας τῷ Εὐδόξου γνωρίμῳ, καὶ μετ' ἐκεῖνον εἰς Ἀθήνας ἐλθὼν, τῷ Ἀριστοτέλει συγκατεβίω, τὰ ὑπὸ τοῦ Εὐδόξου εὑρεθέντα σὺν τῷ Ἀριστοτέλει διορθούμενός τε καὶ προσαναπληρῶν*[b]—v. *Εὐδόξῳ τοίνυν καὶ τοῖς πρὸ αὐτοῦ τρεῖς ὁ ἥλιος ἐδόκει κινεῖσθαι κινήσεις, τῇ τε τῶν ἀπλανῶν σφαίρᾳ ἀπὸ ἀνατολῶν ἐπὶ δυσμὰς συμπεριαγόμενος, καὶ αὐτὸς τὴν ἐναντίαν (ὁδὸν) διὰ τῶν δώδεκα ζωδίων φερόμενος, καὶ τρίτον ἐπὶ τοῦ διὰ μέσων τῶν ζωδίων εἰς τὰ πλάγια παρεκτρεπόμενος. καὶ* γὰρ καὶ τοῦτο κατείληπτο, ἐκ τοῦ μὴ κατὰ τὸν αὐτὸν ἀεὶ τόπον ἐν ταῖς τροπαῖς ταῖς θεριναῖς καὶ χειμεριναῖς ἀνατέλλειν[c]—vi. Κάλλιππος δὲ τὴν μὲν θέσιν τῶν σφαιρῶν τὴν αὐτὴν ἐτίθετο Εὐδόξῳ[d] κ῾, τ. λ.—vii. Εὔδημος δὲ συντόμως ἱστόρησε τίνων φαινομένων ἕνεκα ταύτας προσθετέας εἶναι τὰς σφαίρας ᾤετο (*sc.* Κάλλιππος). λέγειν γὰρ αὐτόν φησιν ὡς εἴπερ οἱ μεταξὺ τροπῶν τε καὶ ἰσημεριῶν χρόνοι τοσοῦτον διαφέρουσιν ὅσον Εὐκτήμονι καὶ Μέτωνι ἐδόκει, οὐχ ἱκανὰς εἶναι τὰς τρεῖς σφαίρας ἑκατέρῳ πρὸς τὸ σώζειν τὰ φαινόμενα, διὰ τὴν ἐπιφαινομένην δηλονότι ταῖς κινήσεσιν αὐτῶν ἀνωμαλίαν[e] *.

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* Cf. 573. 16 a. (991 a. 16.): *Ὃ λέγει τοιοῦτόν ἐστιν· ὅτι οἱ περὶ Ἀναξαγόραν καὶ Εὔδοξον τὸν ἀστρονόμον, τὸν Πλατωνικὸν, (ἀκροατὴς γὰρ γέγονε Πλάτωνος, καί τινα τῶν Εὐκλείδου αὐτοῦ φασιν εἶναι,) κ̀, τ. λ.* De Eudemo, cf. 519. 38 b. Ex Asclepio, in Metaphysica: *Ἀπολογοῦνται δὲ ὑπὲρ τούτου καὶ καλῶς ἀπολογοῦνται ὅτι γράψας (ὁ Ἀριστοτέλης) τὴν παροῦσαν πραγματείαν ἔπεμψεν αὐτὴν Εὐδήμῳ τῷ ἑταίρῳ αὐτοῦ τῷ Ῥοδίῳ· εἶτα ἐκεῖνος ἐνόμισε μὴ εἶναι καλὸν ὡς ἔτυχεν ἐκδοθῆναι εἰς πολλοὺς τηλικαύτην πραγματείαν· ἐν τῷ οὖν μέσῳ χρόνῳ ἐτελεύτησε, καὶ διεφθάρησάν τινα τοῦ βιβλίου.* Cf. 520. 3–6 a: 589. 41 a.

[y] Scholia in Arist. 472. 42 a. De Cœlo, i. 269 a. 19.
[z] Ibid. 497. 1 a. Ibid. ii. 291 a. 31.
[a] Ibid. 498. 45 a. Ibid. ii. 292 b. 24.
[b] Ibid. -- 27 b. Ibid. ii. 293 a. 4.

With regard to Timocharis, Ptolemy classed him with Aristyllus[f], as the authors of the oldest observations, among the Greeks, next to Meton and Euctemon, known to Hipparchus and himself. We have seen that one of his observations was dated B. C. 283; which would be the second year of Ptolemy Philadelphus, according to the canon of Ptolemy; and there is another[g] in the 13th year of the same reign, B. C. 272—Mesore 17 at 18 h. from noon, October 12 at 6 a. m.—an observation of the planet Venus, the oldest of which there was any account. Neither Ptolemy however nor Hipparchus gave him credit for the accuracy of his observations: as either ἀδίστακτοι or ἐπεξειργασμέναι[f]. Hipparchus' opinion of him may be collected from the following reference (which occurs in Ptolemy) to his treatise on the length of the year[h]: Καὶ διὰ τοῦτο ἐν τῷ περὶ τοῦ ἐνιαυσίου μεγέθους ὑπο-

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* It is observable that in all the preceding passages, as often as the name occurs, it is written Κάλλιππος, not Κάλιππος. In Geminus and Ptolemy it is Κάλιππος, and each of these was an earlier authority than Simplicius and the other authors of these Scholia. But as these Scholia appeal to the writings of Callippus himself, and to those of his contemporaries, Eudemus, and the rest, it is probable that they had his own sanction, and that of his contemporaries, for this orthography. For this reason, we have adopted it ourselves, though analogy would seem to require Κάλιππος. In Plutarch's life of Dion, xxviii. &c. and in the Oratt. Græci, and in Aristotle's Rhetorica, i. 12. 45. 29. the name is Κάλλιππος too.

[c] Scholia in Arist. 498. 35 b. De Cœlo, ii. 293 a. 4.

[d] Opera, 1073. 32 b. Metaphysica, Λ. cap. 8. The number of spheres which he actually assumed was not 3, but 33: cf. 807. 29 a—808. 34 b.

[e] Schol. in Aristot. 500. 25 a. cf. 502. 5 b—15 b. 502. 48 b. 503. 1 a. Πολέμαρχος δὲ ὁ Κυζικηνὸς γνωρίζων μὲν αὐτὴν φαίνεται κ῾, τ. λ.

[f] Magna Compositio, vii. i. Opp. ii. 2.

[g] Ibid. x. iv. Opp. ii. 245. cf. our Fasti Catholici, ii. 416. ii. i.

[h] vii. iii. Opp. ii. 15. cf. 16-21.

*τίθεται τὴν περὶ τοὺς διὰ μέσων τῶν ζωδίων πόλους γενομένην κίνησιν· διστάζει δ' ὅμως ἔτι καθάπερ καὶ αὐτός φησι, διὰ τὸ μήτε τὰς τηρήσεις τῶν περὶ τὸν Τιμόχαριν ἀξιοπίστους εἶναι, πάνυ ὁλοσχερῶς εἰλημμένας, μήτε τὴν ἐν τῷ μεταξὺ χρόνῳ διαφορὰν ἱκανὴν ἤδη γεγονέναι πρὸς βεβαίαν κατάληψιν.* The observations here alluded to were those of Spica Virginis[i], which are said to have suggested to Hipparchus the discovery, which has immortalized his name in the history of astronomy; that of the Precession.

## CHAPTER VI.

### *Review of Metonic dates.*

### SECTION I.—*On the final end of the proposed Review.*

The final end which is proposed in this Review is the general illustration of the Metonic Calendar by particular dates, from B. C. 432 downwards; and especially the proof of the following point: viz. That after the reception of this Calendar into public use, B. C. 425, it continued to be used at Athens, as low down as we can trace it, without any the least alteration.

It would be a necessary consequence of this fact, that though true to the moon at its first publication, and its first reception, yet after the lapse of one period of seventy-six years from the epoch, it must begin to exhibit a difference of one day from the true lunar reckoning of the time, and of one day in excess, not in defect: and this liability so to differ remaining uncorrected, it must go on at the rate of one day more, for every fresh period of seventy-six years. *This* is that fact in the history of the Metonic Correction, which has hitherto escaped modern chronologers; and therefore we consider it so much the more incumbent upon us to establish it, by means of the present Review. And for this purpose we shall notice not only all such other dates as are calculated to throw light upon it, but more especially those of solar or lunar eclipses: because these are that class of dates, which can not only be ascertained at present, for a given point of time, independent of testimony *ab extra*, but also, when thus ascertained, being compared with the calendar for the time being, supply the most unquestionable criterion of the amount of the *Precession*, (or difference of the calendar dates and the true lunar ones,) accumulated meanwhile.

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[i] Vide Lib. iii. ii. Opp. i. 156. vii. ii. Opp. ii. 10–12: also our Fasti Catholici, ii. 413. iii. ii. and iii. 460.

## SECTION II.—*Review of Metonic dates, from Period* i. 1, *Cycle* i. 1, *B. C.* 432, *to Period* x. 12, *Cycle* xxxvii. 12, *A. D.* 264.

i. Period i. 2. Cycle i. 2. B. C. 431–430.

| | | h. | m. | s. | | |
|---|---|---|---|---|---|---|
| Hecatombæon 1 | July 5 | 18 | 0 | 0 | *Cavus.* | Exemtile 18. |
| Metageitnion 1 | August 3 | 18 | 0 | 0 | *Plenus.* | |
| Pingré ☽ eclipsed | August 3 | 16 | 0 | 0 | Paris. | B. C. 431. |
| | — 3 | 17 | 25 | 34 | Athens. | |

Date of the solar eclipse, noticed by Thucydides[k], in the first year of the War, with the circumstantial addition of Νουμηνίᾳ κατὰ σελήνην: from which we inferred[l] that it did not happen on the Νουμηνία according to the calendar. By the Octaëteric calendar, Period ii. 2, Cycle i. 2, Metageitnion 1 at midn. fell on August 2 at midn.; by the Metonic, Period i. 2, Cycle i. 2, on August 4 at midn.: the former the day before, the latter the day after, the νουμηνία κατὰ σελήνην.

ii. Period i. 8. Cycle i. 8. B. C. 425–424.

| | | h. | m. | s. | | | |
|---|---|---|---|---|---|---|---|
| Hecatombæon 1 | June 28 | 18 | 0 | 0 | *Cavus.* | Ex. 3. | B. C. 425. |
| Elaphebolion 1 | March 20 | 18 | 0 | 0 | *Plenus.* | | B. C. 424. |

| | h. | m. | s. | | h. | m. | s. |
|---|---|---|---|---|---|---|---|
| Elaphebolion 1 | 0 | 0 | 0 | March 20 | 18 | 0 | 0 |
| Add | 15 | 25 | 34 | | 15 | 25 | 34 |
| Elaphebolion 1 | 15 | 25 | 34 | March 21 | 9 | 25 | 34 |

| | | h. | m. | s. | | |
|---|---|---|---|---|---|---|
| Pingré ☽ eclipsed | March 21 | 8 | 0 | 0 | Paris. | B. C. 424. |
| | March 21 | 9 | 25 | 34 | Athens. | |

Date of the solar eclipse mentioned by Thucydides[m] in the chronological summer of the eighth year of the War, περὶ νουμηνίαν: the first Metonic date of its kind after the adoption of the Correction into public use. Consequently, at this time true to the moon: which explains the reason why Thucydides does not add in this instance, as he did in the former, *κατὰ σελήνην.*

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[k] ii. 28.
[l] Diss. iii. ch. ii. iv. vol. i. 489.
[m] iv. 52.

iii. Period i. 9. Cycle i. 9. B. C. 424–423.

| | | h. | m. | | | |
|---|---|---|---|---|---|---|
| Hecatombæon 1 | July 16 | 18 | 0 | B. C. 424. | *Plenus.* | |
| Elaphebolion 1 | March 10 | 18 | 0 | B. C. 423. | *Cavus.* | Ex. 3. |

| | h. | m. | | h. | m. |
|---|---|---|---|---|---|
| Elaphebolion 1 | 0 | 0 | March 10 | 18 | 0 |
| Add 13 | | | Add 12 | | |
| Elaphebolion 14 | 0 | 0 | March 22 | 18 | 0 |

Date of the Truce, for one year, in the ninth of the War[n]. In the Lacedemonian calendar, Gerastius 12[o], or rather (as we hope to see hereafter) Gerastius 16.

iv. Period i. 10. Cycle i. 10. B. C. 423–422.

| | | h. | m. | | | |
|---|---|---|---|---|---|---|
| Hecatombæon 1 | July 6 | 18 | 0 | B. C. 423. | *Cavus.* | Ex. 9. |
| Anthesterion 1 | Jan. 28 | 18 | 0 | B. C. 422. | *Plenus.* | |
| Elaphebolion 1 | Feb. 27 | 18 | 0 | B. C. 422. | *Cavus.* | Ex. 21. |

| | | h. | m. | s. | | h. | m. | s. |
|---|---|---|---|---|---|---|---|---|
| i. | Anthesterion 1 | 0 | 0 | 0 | January 28 | 18 | 0 | 0 |
| | — 29 | 17 | 53 | 18 | — 29 | 17 | 53 | 18 |
| | Anthesterion 30 | 17 | 53 | 18 | February 27 | 11 | 53 | 18 |

Εἶτα τὸν θεοῖσιν ἐχθρὸν βυρσοδέψην Παφλαγόνα
ἡνίχ' ᾑρεῖσθε στρατηγὸν, τὰς ὀφρῦς συνήγομεν,
.. .. .. .. ..
ἡ σελήνη δ' ἐξέλειπε τὰς ὁδούς· ὁ δ' ἥλιος
τὴν θρυαλλίδ' εἰς ἑαυτὸν εὐθέως ξυνελκύσας
οὐ φανεῖν ἔφασκεν ὑμῖν εἰ στρατηγήσει Κλέων[p].

It is commonly supposed the election, here alluded to, was the appointment of Cleon to the command against Sphacteria, B. C. 425. The scholiast must have been of that opinion. He speaks of an eclipse of the moon, in Boëdromion, the year before (Ἐπὶ Στρατοκλέους), and of an eclipse of the sun, on some occasion, when Cleon was being elected, (which could have been only B.C. 425–424,) before the date of the Πρότεραι

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[n] Thucyd. iv. 118. Athenæus, v. 59.
[o] Thucyd. iv. 119.
[p] Aristoph. Nubes, 581.

Νεφέλαι themselves[p]: Ἐπειδὴ ἔκλειψις ἐγένετο σελήνης τῷ προτέρῳ ἔτει, ἐπὶ Στρατοκλέους, Βοηδρομιῶνι—Ἔκλειψις γὰρ ἡλίου ἐγένετο κατά τινα τύχην, Κλέωνος χειροτονουμένου.

Now the year of Stratocles, Cycle i. 8, entered Hecatombæon 1 June 29 B. C. 425. There was no lunar eclipse that year, later than this date, except that of October 9 at 6.30 P. M. (Paris), Pyanepsion 15 (not Boëdromion 15) in the Attic calendar; nor any solar one, but that of October 23 6.30 P. M. (Paris), which could not have been visible at Athens. Nor do we see on what foundation this statement of a lunar eclipse prior to the *διδασκαλία* of the first Nubes could have rested, except the fact that there was one in the year of Isarchus, Sept. 28 at 9.0 P. M. Paris, B. C. 424, the Metonic date of which too was Boëdromion 15.

With regard however to Cleon's appointment before Sphacteria[q], Thucydides tells us it was only twenty days before his return with the prisoners[r]. Now, if we trace the succession of events, from the invasion of Attica this year, (the seventh of the war[s],) down to the reduction of Sphacteria[t], the intermediate notes of time are not found to amount to much more than one *hundred* days; the beginning of which having been the invasion, at a time when the corn was still green[v], (consequently early in May[x],) the end could not have been later than the middle of August[y]: in the archontic year of Stratocles indeed, but some time in the month Metageitnion that year, not the month Boëdromion.

The truth is, the *στρατηγία* here alluded to, as some time or other conferred upon Cleon, in spite of the omens which had concurred to denounce it as contrary to the approval of the gods, was not the temporary command to which he was appointed, B. C. 425, against Sphacteria, but the general command, to which he was appointed, B. C. 422, against Brasidas and Amphipolis. To none else was Aristophanes likely to have alluded in such terms as these. The former was too old an affair, B. C. 422, to be again paraded on the stage; particularly when so much had been said about it in the Ἱππεῖς, B. C. 423. It had been followed by too much success to have allowed even Aristophanes to speak of it as contrary to the will or sanction of the gods; and the Athenians themselves had marked their approval of it a second time, by voting Cleon, after his return, a crown of gold[z]. But with respect to his second appointment, the case was totally different. Let us then consider under what circumstances that would probably take place.

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[p] Ad Nub. 585, 586.

[q] Thucyd. iv. 28.

[r] Ibid. 39. cf. Plut. Nikias, vii. viii.

[s] iv. 2.

[t] Ibid. 40.

[v] Ibid. 2. 6.

[x] Cf. vol. i. 144 and 142.

[y] Cf. Diodor. Sic. xii. 60–63.

On the 14 Elaphebolion, March 13, B. C. 422, the late truce for a year would expire. The Athenians had already determined to send a large army to Thrace; and they were not likely to wait for the expiration of the truce before they took even the preliminary step of appointing a commander. Now, by the laws of Athens, the election of Στρατηγοὶ was bound to take place on one of the days of the Κύριαι ἐκκλησίαι[a], and in the Pnyx, the oldest place of assembly[b]. The 30th of the month was one of these days; and if an eclipse of the sun occurred when one of these elections was going on, the day of assembly must have been the 30th of the month.

Now Anthesterion 30, Cycle i. 10, fell on Feb. 27, B. C. 422; and there was actually on that day a solar eclipse, which must have been very considerable somewhere or other; and even though only a partial one at Athens, might have been such even there as to cause a visible diminution in the integrity of the solar disc, and the intensity of the solar light: to which Aristophanes may have alluded in the lines above quoted,

> *Τὴν θρυαλλίδ' εἰς ἑαυτὸν εὐθέως ξυνελκύσας*
> *οὐ φανεῖν ἔφασκεν ὑμῖν εἰ στρατηγήσει Κλέων* * [c].

* The date of this eclipse in Pingré, for the meridian of Paris, is Feb. 27, at 11 A. M. By our own Tables we have,

| B. C. 422. | | h. | m. | s. | |
|---|---|---|---|---|---|
| Mean new moon, | Feb. 27 | 14 | 57 | 12 | m. t. Greenwich. |
| | Feb. 27 | 16 | 32 | 18 | m. t. Athens. |
| True new moon, | Feb. 27 | 10 | 18 | 22 | m. t. Greenwich. |
| | Feb. 27 | 11 | 53 | 18 | m. t. Athens. |

The distance of the sun from the descending node was only about 5° 32′

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[z] Schol. ad Equit. 1222.

[a] Cf. Anecdota, 274. 19, and Hesychius, Κυρία ἐκκλησία.

[b] Hesychius, Πνύξ. cf. Schol. in Platon. ii. 444: Critias, 155. 8: Pollux, viii. x. i. § 32. 957.

[c] Ver. 585, 586.

There are difficulties certainly connected with the chronology of the Nubes, and its different editions, which it would take up too much time to enter upon and explain here: but there is nothing inconsistent with the above conclusions. It is a mistake to infer from another allusion[o], that Cleon was dead when the play was brought out; and there are other allusions to him in the course of the same play[p], which clearly imply that he was still alive. In fact, the precise time of his death was about midsummer, this very year. These plays, the Ἱππεῖς, the Νεφέλαι, the Σφῆκες, were brought out in the following order; at the Lenæa, B.C. 423, the Ἱππεῖς, and at the Dionysia, the πρῶται Νεφέλαι; at the Lenæa, B.C. 422, the Σφῆκες, before Cleon had yet been appointed to the command in Thrace, and at the Dionysia, from 11 to 13 days after this appointment, the δεύτεραι Νεφέλαι—which is the play extant at present, containing the allusion which we have just illustrated.

| | | h. | m. | | h. | m. | |
|---|---|---|---|---|---|---|---|
| ii. | Elaphebolion 1 | 0 | 0 | Feb. 27 | 18 | 0 | B.C. 422. |
| | Add 13 | | | Add 13 | | | |
| | Elaphebolion 14 | 0 | 0 | March 12 | 18 | 0 | |

Date of the expiration of the truce, and of the resumption of hostilities in the tenth year of the war[q].

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42″: so that there must have been a great eclipse, somewhere or other, this day. Pingré indeed notes it as central, at sunrise, noon, and sunset, only for southern latitudes; but it does not follow from this, that it might not have been partial for northern latitudes, like that of Athens, 37° 58′ 8″.

In the allusion to the moon, on the same occasion,

ἡ σελήνη δ' ἐξέλειπε τὰς ὁδούς—

the use of the imperfect tense, ἐξέλειπε, is something observable. It implies that when the Athenians were electing Cleon, the moon also was deserting her usual path in the sky. As soon as they began to elect him, she too began to shew her displeasure at it, by disappearing, or beginning to disappear. And this too is one argument that these proceedings were going on at the time of the lunar and solar conjunction. The moon indeed is always invisible at the conjunction; but Aristophanes so represents the state of the case in this instance, as if she did not choose to be seen herself, rather than see the election of Cleon.

[o] Ver. 549, 550.

[p] Ver. 591 and 955.

[q] Thucyd. v. 1.

### v. Period i. 11. Cycle i. 11. B. C. 422–421.

| | | h. | m. | | | |
|---|---|---|---|---|---|---|
| Hecatombæon 1. | June 25 | 18 | 0 | B.C. 422. | *Cavus.* | Ex. 27. |
| Elaphebolion 1. | March 17 | 18 | 0 | B.C. 421. | *Cavus.* | Ex. 9. |

| | | h. | m. | | | h. | m. | |
|---|---|---|---|---|---|---|---|---|
| Elaphebolion | 1 | 0 | 0 | March | 17 | 18 | 0 | B.C. 421. |
| Add | 24 | | | Add | 23 | | | |
| Elaphebolion | 25 | 0 | 0 | April | 9 | 18 | 0 | |

Date of the fifty years' truce, in the eleventh of the war[r]. In the Spartan calendar, Artemisius 27.

### vi. Period i. 19. Cycle i. 19. B. C. 414–413.

| | | | | | |
|---|---|---|---|---|---|
| Hecatombæon 1. | June 26 | 18 h. | B.C. 414. | *Cavus.* | Ex. 18. |
| Posideon B. 1. | Dec. 20 | 18 h. | B.C. 414. | *Cavus.* | Ex. 27. |

5th of Posideon B. Dec. 25.

Date of the winter solstice, (Ægon 1. Dec. 25 in the solar calendar of Meton,) B. C. 414; and consequently that of the mission of Eurymedon to Sicily, *περὶ ἡλίου τροπὰς τὰς χειμερινάς*[s]. The letter of Nikias was sent just before the close of the chronological summer[t], the autumnal equinox, Sept. 27. Eurymedon was returning, and arrived on the coast of Acarnania, when he fell in with Demosthenes, sailing to Sicily[v]: and *he* was sent in the spring[x] B. C. 413.

### vii. Period i. 20. Cycle ii. 1. B. C. 413–412.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1. | July 15 | 18 h. | B. C. 413. | *Plenus.* |
| Metageitnion 1. | Aug. 14 | 18 h. | — — | *Plenus.* |

| | | h. | m. | s. | | | h. | m. | s. |
|---|---|---|---|---|---|---|---|---|---|
| Metageitnion | 1. | 0 | 0 | 0 | August | 14 | 18 | 0 | 0 |
| Add | 13. | 5 | 6 | 50 | | 13 | 5 | 6 | 50 |
| Metageitnion | 14. | 5 | 6 | 50 | August | 27 | 23 | 6 | 50 |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| Pingré ⊙ eclipsed | August 27 | 22 | 15 | 0 | Paris. |
| | August 27 | 23 | 6 | 50 | Syracuse. |

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[r] Thucyd. v. 18, 19, 20, 25, 26.

[s] vii. 16. 18. (cf. 10): Diodor. Sic. xiii. 8. cf. 2. 9.

[t] vii. 8, 9. cf. Plut. Nikias, xix.

[v] Ibid. 31. cf. Nikias, xx.

[x] vii. 20. cf. 15–17.

Date of the lunar eclipse, before the retreat of the Athenians from Syracuse[y], B.C. 413; from which we ultimately deduce the date of the capture of Nikias, Boëdromion 1, in the Attic, Carneus 27, in the Syracusan calendar[z], September 14, in the Julian, the same year.

viii. Period i. 20, Cycle ii. 1, B.C. 413–412.

Hecatombæon 1, July 15, 18 h. B.C. 413, *Plenus.*
Posideon 1, Dec. 10, 18 h. ——— *Plenus.*

27 Posideon, Jan. 6, B.C. 412.

The news of the disasters in Sicily, it is supposed by Thucydides[a], reached Athens before the end of the chronological summer, B.C. 413; which, if understood of the consummation of all by the final catastrophe, Sept. 14, this year, only 13 days before the autumnal equinox, could scarcely have been possible. It would be inconsistent at least in other respects even with his own account[b].

In fact, from the speech of Nikias[c], B.C. 415, it must be inferred that the time taken up by the voyage from Sicily to Athens, in the winter season, in these times was not less than *four* months: so that if all was over not earlier than Sept. 14, B.C. 413, the news to that effect could not be expected to arrive before the end of the year. It is related by Athenæus[d] that, when it did so, the people were in the theatre, witnessing the acting of Hegemon the παρῳδὸς in the Gigantomachia. The Διονύσια ἐν ἀγροῖς were celebrated in Posideon[e]; and as there is reason to conclude on the 27th of Posideon: and the 27th of Posideon, Period i. 20, Cycle ii. 1, actually fell Jan. 6, B.C. 412, very nearly four months complete from Sept. 14 the same year.

ix. Period i. 25, Cycle ii. 6, B.C. 408–407.

Hecatombæon 1, July 20, 18 h. B.C. 408, *Cavus.* Ex. 30.
Thargelion 1, May 11, 18 h. B.C. 407, *Plenus.*

25th of Thargelion, June 5.

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[y] Thucyd. vii. 50: Plut. Nikias, xxiii. De Superstitione, viii.: Diodorus, xiii. 12: Polybius, ix. 19, 1–4: Pliny, H.N. ii. 9. 229.

[z] Plut. Nikias, xxviii.

[a] viii. 1. 2–6.

[b] vii. 86, 87. 79 &c.

[c] vi. 22.

[d] ix. 72. Cf. Eustathius ad Od. A. 326: 1420. 39.

[e] Cf. Theophrastus, Ἀδολεσχία: Hesychius, in Ληναιών: Scholia in Æschin. cont. Timarch. 68. 5. *Reiskii.*

Date of the return of Alkibiades, the Πλυντήρια[f], an ἡμέρα ἀποφρὰς according to Xenophon and to Plutarch[g].

x. Period i. 26, Cycle ii. 7, B. C. 407–406.

Hecatombæon 1, July 9, 18 h. B. C. 407, *Plenus.*
Boëdromion 1, Sept. 6, 18 h. ——— *Plenus.*

Boëdromion 15–23, Sept. 21–29.

Date of the mysteries (nine days, Boëdromion 15 inclusive to Boëdromion 23 inclusive) celebrated at Eleusis, after the return of Alkibiades[h].

xi. Period i. 26, Cycle ii. 7, B. C. 407–406.

Hecatombæon 1, July 9, 18 h. B. C. 407, *Plenus.*
Munychion 1, April 1, 18 h. B. C. 406, *Cavus*, Ex. 30.

| | | h. | m. | s. | | | h. | m. | s |
|---|---|---|---|---|---|---|---|---|---|
| Munychion | 1 | 0 | 0 | 0 | April | 1 | 18 | 0 | 0 |
| Add | 14 | 3 | 55 | 34 | April | 14 | 3 | 55 | 34 |
| Munychion | 15 | 3 | 55 | 34 | April | 15 | 21 | 55 | 34 |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| Pingré ⊙ eclipsed April | 15 | 20 | 30 | 0 | Paris, B. C. 406 |
| April | 15 | 21 | 55 | 34 | Athens. |

Date of the lunar eclipse, noticed by Xenophon[i], in the 26th year of the war.

xii. Period i. 27, Cycle ii. 8, B. C. 406–405.

Hecatombæon 1, June 29, 18 h. B. C. 406, *Cavus*, Ex. 3.
Pyanepsion 1, Sept. 25, 18 h. ——— *Plenus.*

Pyanepsion 26–29, Oct. 21–Oct. 24.

Date of the Apaturia (Pyanepsion 26 inclusive to Pyanepsion 29 inclusive, as we hope to prove on a future occasion,) coincident with the trial of the Admirals, after the battle of Arginussæ[k]: from which we may collect the date of the battle also[l]—not earlier than the autumnal equinox, September 27, Pyanepsion 2: which would account for the stormy weather, alluded to at the same time[m]. At this trial Antiochis was the *πρυτανεύουσα φυλή*[n]: and as the year was intercalary, the first three Prytanies would probably have thirty-eight days each: and Antiochis would be the fourth.

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[f] Hellenica, i. iv. 12: Plutarch, Alkibiades, xxxiv. xxxii. Cf. Photius, Lexicon, Καλλυντήρια καὶ Πλυντήρια: Hesychius, Πλυντήρια: Hesychius and Photius, Ἡγητήρια: Anecdota Græca, 269. 32. Κάλλιον: Etym. M. Καλλυντήρια καὶ Πλυντήρια.

[g] Locis citatis.

[h] Hellenica, i. iv. 20. Plutarch, Alkibiades, xxxiv.

[i] Hellenica, i. vi. 1.

[k] Ibid. i. vii. 8–38.

*Order of the first four* πρυτανεῖαι.

Period i. 27, Cycle ii. 8, B. C. 406.

i. Hecatombæon 1, June 30.
ii. Metageitnion 10, Aug. 7.
iii. Boëdromion 19, Sept. 14.
iv. Pyanepsion 27, Oct. 22. Antiochis.

Which is a very close coincidence; as Antiochis must have entered only on the second day of the Apaturia. But the trial, though going on previously, would necessarily be suspended during the Apaturia; and Antiochis would be actually in office when it was concluded.

xiii. Period i. 28, Cycle ii. 9, B. C. 405–404.

Hecatombæon 1, July 16, 18 h. B. C. 405, *Plenus.*
Munychion 1, April 8, 18 h. B. C. 404, *Plenus.*

16 Munychion, April 24.

Date of the reduction of Athens by Lysander, of the destruction of the long walls, and of the close of the Peloponnesian war[o].

xiv. Period i. 29, Cycle ii. 10, B. C. 404–403.

Hecatombæon 1, July 6, 18 h. B. C. 404, *Cavus*, Ex. 9.
Metageitnion 1, Aug. 4, 18 h. ——— *Plenus.*

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[l] Hellenica, i. vi. 28–38.

[m] Ibid. i. vi. 28. 35. 38. cf. Lysias, xii. 37.

[n] Plato, Opp. Pars i. ii. 120. 16. Apologia Socratis: cf. Pars ii. i. 59. 15. Gorgias: Pars iii. iii. 512. 15–22. Axiochus. Xenoph. Memorabilia, i. i. 18: iv. iv. 1, 2.

[o] Plutarch, Lysander, xv. Cf. the Hellenica, ii. ii. 22–24. Thucydides, v. 26: Lysias, xiii. 37: Justin. v. 8. § 7. De anno ante Ch. Nat. 404: Insignis hic annus et expugnatione Athenarum, et morte Darii regis, et exsilio Dionysii Siciliæ tyranni fuit. So likewise Orosius, ii. xvii. Both Justin and Orosius have exsilio Dionysii Siciliæ tyranni—as if he had been banished this year. But this year, or at least the year before, ineunte, or B. C. 406 exeunte, as we hope to see hereafter, was the date of the beginning of his tyranny—we may presume then the true reading in Justin should be *initio*, not *exsilio*. Cf. Diodor. xiii. 96. 107. 108. 112.

| | | h. | m. | s. | | | h. | m. | s. |
|---|---|---|---|---|---|---|---|---|---|
| Metageitnion | 1 | 0 | 0 | 0 | August | 4 | 18 | 0 | 0 |
| Add | 29 | 16 | 55 | 34 | | 29 | 16 | 55 | 34 |
| Metageitnion | 30 | 16 | 55 | 34 | Sept. | 3 | 10 | 55 | 34 |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| By Pingré ☽ eclipsed | Sept. 3 | 9 | 30 | 0 | Paris. |
| | Sept. 3 | 10 | 55 | 34 | Athens. |

Date of the solar eclipse before the reduction of Samos by Lysander[p]; with which event Xenophon closes the history of the Peloponnesian war. The calendar was still sufficiently true to the moon; the date of this conjunction having been the τριακὰς at least, though not the νουμηνία.

### xv. Period i. 29, Cycle ii. 10, B. C. 404–403.

Hecatombæon 1, July 6, 18 h. B. C. 404, *Cavus*. Ex. 9.
Posideon 1, Nov. 30, 18 h. ——— *Plenus*.

### xvi. Period i. 30, Cycle ii. 11, B. C. 403–402.

Hecatombæon 1, June 25, 18 h. B. C. 403, *Cavus*. Ex. 27.
Boëdromion 1, Aug. 23, 18 h. ——— *Cavus*. Ex. 30.

| | | | | | |
|---|---|---|---|---|---|
| Boëdromion | 1 | 0 h. | August | 23 | 18 h. B. C. 403. |
| Add | 11 | | Add | 10 | |
| Boëdromion | 12 | 0 h. | Sept. | 2 | 18 h. |

Date of the end of the civil commotions before and after the expulsion of the Thirty; and also of the celebrated ἀμνηστία of Thrasybulus[q].

Before the commencement of this contest[r] the Thirty had been eight months in possession of power[s]; and they came into possession immediately after the capture of Athens, Munychion 16, April 24, B. C. 404[t]. These eight months probably extended into Posideon, Dec. 1–30.

The battle in the Piræus, the day after the arrival of Thrasybulus[v], took place on the fifth day after the affair at Phile[x]: and that was only two or three days after the occupation of Phile itself[y]. The weather was fine when Phile was occupied *; but a snow storm came on the night after the arrival of the Thirty there[z] — as might very well have happened either early or late in Posideon, that is, early or late in December. A fact too is mentioned by Clemens Alexandrinus[a] of the march from Phile to the Piræus, *four* days afterwards, which would imply that it was made at a time when the nights were *ἀσέληνοι* : *ἀσελήνου καὶ δυσχειμερίου τοῦ καταστήματος γεγονότος* : and that too would describe the first quarter of the moon of Posideon ; or possibly even the last.

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[p] Hellenica, ii. iii. 4.

[q] Plutarch, de Gloria, vii: Symposiaca, ix. 6. Cf. supra, Diss. i. chapter iii. vol. i. 55.

[r] Hellenica, ii. iv. 2.

[s] Ibid. iv. 21. [t] ii. iii. 11. cf. § 1.

[v] Hellenica, ii. iv. 10–13.

[x] Ibid. 5.

[y] Ibid. 2–6. Cf. Schol. ad Plutum, 1147.

But though the contest probably began in this month, B. C. 404, it must have been protracted to the 12th of Boëdromion, B. C. 403 : and Isocrates[b] shews that one harvest time passed while it was still undecided ; and Xenophon[bb] that the dialogue there recorded took place in the meantime too[c].

This year, B. C. 403, is remarkable as the archontic year of Euclides, a famous *προθεσμία* in Attic history in more respects than one[cc] : but whether it entered as usual Hecatombæon 1, Cycle ii. 11, June 26, that year, or some day later than Boëdromion 12, Sept. 3, is doubtful. Xenophon tells us[d] that the year before, the year of Pythodorus, the year of the usurpation of the Thirty, was marked in the Fasti, *Ἀναρχία*.

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* The number of the followers of Thrasybulus at the outset is represented by Cornelius Nepos[1] at 30 ; by Aristides[2] at upwards of 50 : and that is confirmed by Aristotle[3]. Phile or Phyle was 100 or 120 stades from Athens[4].

[1] Vita, 2.

[2] Panathenaicus, xiii. 271. 11.

[3] ii. 1429. 96. Rhetorica ad Alex. i. 9.

[4] Cf. Diodorus, xiv. 32 : Dem. xviii. 47. Scholia in Æschinem, De Falsa, 370. 4 *R.*

[z] Hell. ii. iv. 2, 3, 4.

[a] Strom. i. xxiv. § 163. p. 108.

[b] xvi. 15.

[bb] Memorabilia, ii. vii. 2.

[c] Cf. generally Lysias, x. 4. 27 : xvi. 4 : Isocrates, iv. 131 : vii. 76 : xx. 15 : Æschines, ii. 81 : iii. 236 : Dinarchus, i. 26 : Diogenes Laertius, vii. i. vi. 5. Zeno.

[cc] See Mr. Clinton, in anno.

[d] Hellenica, ii. iii. 1.

### xvii. Period i. 33. Cycle ii. 14, B. C. 400–399.

Hecatombæon 1, July 21, 18 h. B. C. 400, *Cavus.* Ex. 21.
Boëdromion 1, Sept. 18, 18 h. — — *Cavus.* Ex. 24.

Boëdromion 10, September 27.
— 20, October 7.

These dates occur in Andokides *περὶ τῶν μυστηρίων* [e]. The day after the Mysteries also occurs [f]; which understood of Boëdromion 21 would be October 8; of Boëdromion 24 would be October 11.

The year to which this oration belongs is determined by its own testimony [g]. It was *three* years after the return of the speaker to Athens; and that return after the re-establishment of the Democracy and the *Ἀμνηστία* [h]: consequently the latter half of B. C. 403 [i]. In the course of this time he had attended both the Isthmia and the Olympia, as *Ἀρχιθέωρος,* on the part of the Athenians; and each would be in course once between the winter of B. C. 403 and the Mysteries, B. C. 400. Twice also, at least, he had attended at the Mysteries [k], without incurring any such charge as the present. The first of these occasions might have been that of the Mysteries, B. C. 402, Sept. 25 to October 3 inclusive; the second, that of those of B. C. 401, Sept. 14 to 22 inclusive. The third must have been the present occasion, that of the Mysteries, B. C. 400, Oct. 2 to October 10, out of which this action arose.

For it appears [l] that by one of the laws, relating to the Mysteries, *Ὃς ἂν θῇ ἱκετηρίαν* (*ἐν τῷ Ἐλευσινίῳ* [m]) *μυστηρίοις*— was liable to be put to death: and by another that the senate was bound to sit in the Eleusinium the day after the last of the mystical feriæ, to receive an account *περὶ τῶν γεγενημένων Ἐλευσῖνι.* On the 20th of Boëdromion [n] Andokides was accused of the breach of the former law, and as soon as the Mysteries were over was put on his trial under the latter;

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[e] Oratio i. § 110 sqq. cf. § 121.
[f] Ibid. 111, 112. 121.
[g] Ibid. 132, 133.
[h] § 140.
[i] Cf. Vita (apud Plut. Decem Oratt. ii. 2) Lysias, vi. 11, 12. 32.
[k] Oratio i. 132.
[l] § 110, 111.
[m] Cf. Lysias, vi. 4.
[n] i. 121.

but whether on the 21st of Boëdromion, the day after the Ἴακχος, or on the 24th, the day after the Πλημοχόη, does not appear *.

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### xviii. Period i. 33, Cycle ii. 14, B. C. 400–399.

| | | | |
|---|---|---|---|
| Hecatombæon | 1, July 21, 18h. | B. C. 400, | *Cavus.* Ex. 21. |
| Thargelion | 1, May 12, 18h. | — 399, | *Plenus.* |
| Skirrhophorion | 1, June 11, 18h. | — — | *Cavus.* Ex. 6. |

| | |
|---|---|
| Thargelion | 5, May 17. |
| Skirrhophorion | 4, June 15. |

Probable date of the trial and condemnation of Socrates on the one hand, and of his death on the other[o]; and between these, his 70th birthday, Thargelion 6, May 18, reckoned from Thargelion 6 in the year of Apsephion, B. C. 468, as the first.

### xix. Period i. 38, Cycle ii. 19, B. C. 395–394.

| | | | |
|---|---|---|---|
| Hecatombæon | 1, June 26, 18h. | B. C. 395, | *Cavus.* Ex. 18. |
| Elaphebolion | 1, March 18, 18h. | — 394, | *Plenus.* |

Elaphebolion 12, March 30.

Hesychius[p], Ἐπὶ Διοφάντου τὸ θεωρητικὸν ἐγένετο δραχμή— Harpocration[q]: Φιλόχορος δὲ ἐν τῇ γ′ τῆς Ἀτθίδος φησὶ, Τὸ δὲ θεωρικὸν ἦν τὸ πρῶτον νομισθὲν δραχμὴ τῆς θεᾶς, ὅθεν καὶ τοὔνομα ἔλαβε ... Φιλῖνος δὲ ἐν τῇ πρὸς Σοφοκλέους καὶ Εὐριπίδου εἰκόνας περὶ Εὐβούλου λέγων φησὶν Ἐκλήθη δὲ θεωρικὸν ὅτι τῶν Διονυσίων ὑπογύων ὄντων διένειμεν Εὔβουλος εἰς τὴν θυσίαν, ἵνα πάντες ἑορτάζωσι, καὶ τῆς θεωρίας μηδεὶς τῶν πολιτῶν ἀπολείπηται, δι᾽ ἀσθένειαν τῶν ἰδίων—Ἐπὶ Διοφάντου τὸ θεωρητικὸν ἐγένετο δραγμή· ἐπεὶ δὲ ἐπέσχε χάλαζα τότε ἀπὸ τοῦ ἀέρος δραγμὴν αὐτὴν χαλαζῶν ἐπέσκωπτον[r]. The Dionysia of Diophantus

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* With respect to the history of Andokides between B.C. 415, when he took so prominent a part in the affair of the Hermæ, and his return, B. C. 403, cf. Lysias, vi. passim: especially 5–8. 24–29. 11, 12. 47, 48. 32: and Andokides, i. περὶ τῶν μυστηρίων passim: Plutarch, x Orat. ii.: Photius, Bibliotheca, Codex 261. p. 488.

[o] Cf. Diss. i. ch. v. viii. vol. i. 189.

[p] Δραχμὴ χαλαζῶσα.

[q] Θεωρικά. cf. Suidas, θεωρικά: θεωρικὸν καὶ θεωρική: Photii Lex. θεωρικά: θεωρικὸν καὶ θεωρική.

[r] Suidas: Δραγμὴ χαλαζῶσα. cf. Parœmiographi Græci, Zenobii Centuria iii. 27. p. 287. Δραχμὴ χαλαζῶσα, Marmor Didascalicum, Corpus Inscr. No. 229.

must have been those of Cycle ii. 19, March 29–31, B.C. 394—a late date, and a time of the year when such a thing for the climate of Attica as an hailstorm was not to be expected. For this reason the dole of the δραχμὴ, now made for the purpose of free admission to the *θεωρίαι*, yet distinguished by this coincidence, got the surname of the δραχμὴ χαλαζῶσα, the *Hailing Drachme*.

xx. Period i. 39, Cycle iii. 1, B.C. 394–393.

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Hecatombæon | 1 | 0 | 0 | 0 | July | 16 | 18 | 0 | 0 | B.C. 390 *Plenus.* |
| Add | 28 | 17 | 25 | 34 | | 28 | 17 | 25 | 34 | |
| Hecatombæon | 29 | 17 | 25 | 34 | Aug. | 14 | 11 | 25 | 34 | |

By Pingré ☽ eclipsed August 14 10 0 0 Paris.
August 14 11 25 34 Athens.

Date of the solar eclipse [s], two days before the battle of Coronea. The calendar was now getting one day and night in advance of the moon; and the civil date of this eclipse was the *δευτέρα φθίνοντος*, instead of the *τριακὰς*, much more the *νουμηνία*. This date is of great importance to the rule of the Pythian Games. It illustrates also the statement of Xenophon [t], respecting Agesilaus' march from Asia to Greece, previously to the battle: which he tells us took up less than a month [v]. This would have been strictly the case, if he set out from the Hellespont on or about the first of Hecatombæon, July 17, and arrived in Bœotia on the 27th, August 12. It would make little difference if Xenophon reckoned by the Spartan calendar, instead of the Attic. The first of Hecatombæon in that this year fell July 13, and the first of the next month, August 12.

xxi. Period i. 40, Cycle iii. 2, B. C. 393–392.

Hecatombæon 1, July 5, 18 h. B. C. 393, *Cavus*. Ex. 18.
Gamelion 1, Dec. 29, 18 h. — 393, *Cavus*. Ex. 27.

The appearance of a comet, some time or other, is noticed by Aristotle in the following terms: Ἐπὶ δ᾽ ἄρχοντος Ἀθήνη-

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[s] Hellenica, iv. iii. 10–19. Plutarch, Agesilaus, xvii. xviii. Cf. Xenophon, Agesilaus, ii. 5–12. Diodorus Sic. xiv. 84. cf. 82. 85.

[t] Agesilaus, ii. i.

[v] Cf. supra Diss. ii. P. ii. ch. ii. iii. vol. i. 369.

*σιν Εὐκλέους τοῦ Μόλωνος ἐγένετο κομήτης ἀστὴρ πρὸς ἄρκτον μηνὸς Γαμηλιῶνος, περὶ τροπὰς ὄντος τοῦ ἡλίου χειμερινάς*[x].

There is no archon in the Tables at present of the name of Eucles; though there are two of that of Euclides, B. C. 427 and B. C. 403 of the common arrangement respectively: the former of whom might possibly have had the name of Eucles. Yet even in that case it would not follow that he must have been the Eucles of Aristotle. This Eucles of Aristotle is described by the name of his father; and it is not usual in references to the names of the archons to find any designation appended to them, besides their proper names, except there was more than one of the same name. In that case, the name of the archon may be found accompanied with that of his father, or with that of the archon before him. This is never the case when the name occurs only once, that is, there is only one archon eponymus of the name in question: and even supposing the name of the archon of B. C. 427–426 to have been Eucles, as it probably was, no other of the same name, before or after, is found in the Tables at present. Aristotle refers to other archons, in connection with similar phenomena, without any further designation, viz.: *Ἐπὶ Ἀστείου*[z], *Ἐπὶ Νικομάχου*[a]. In this instance only he does so with such an addition, as could have been intended solely to prevent his Eucles being confounded with some other person.

Now as this comet appeared in the month Gamelion, on the one hand, yet at or near the winter solstice on the other; the first of Gamelion, at the actual time of its appearance, must have been falling at or about the winter solstice. In the calendar of Meton, the solstitial date was Ægon 1, December 25; in that of Eudoxus, Ægon 4, December 28: and this latter was probably the date intended by Aristotle in the present instance; the Meteorologica themselves having been written B. C. 356, the same year in which Alexander was born, and the temple of Diana at Ephesus was burnt down: and the Parapegma of Callippus (which he would probably have made use of had it been in existence) not having been published before B. C. 330.

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[x] Meteorologica, i. 6. pag. 12, 2. cf. Gaza de Mensibus, ix. Uranologium. 294 B.

[z] Meteorologica i. 6. 12, 17.

[a] i. 7. 15, 11.

The comet therefore appeared in the month Gamelion, and some time at or about the winter solstice also; that is, at or about December 28, or at least December 25. Let these two tests of the true time of its appearance be applied to each of those years in the Archontic Fasti which are marked with the name of Euclides, B. C. 427 and B. C. 403 respectively. The first of Gamelion, in the year of the first Euclides, according to the old calendar (the only one then in use), fell on Jan. 12, B. C. 426; the first of the same month, in the year of the second, when the Metonic correction was now in use, fell on January 19, B. C. 402: the former fifteen days later than the date of the winter solstice, assumed to have been Dec. 28, eighteen days later if assumed to have been Dec. 25; the latter twenty-two days later in the one case, twenty-five in the other. Whether each of these archons then was called Euclides, or each of them Eucles, or the first was called Eucles and the second Euclides, the Eucles of Aristotle, in whose year the comet appeared, (both in the month Gamelion, and at or about the winter solstice,) could not have been the same with either.

And indeed, with respect to the appearance of a comet, B. C. 427 or 426, or any year about that time, at all, it is very observable that Thucydides, though purposely enumerating the various natural phenomena different from usual, which had coincided with some period or other of the Peloponnesian war, specifies earthquakes, droughts, famines, and pestilences, and, in particular, eclipses of the sun, Aἳ *πυκνότεραι παρὰ τὰ ἐκ τοῦ πρὶν χρόνου μνημονευόμενα ξυνέβησαν*[b], but says nothing about comets, which would have been most to his purpose of all, as still rarer and more remarkable phenomena of their kind; from which silence we think it may be reasonably inferred that none were actually observed in the course of this war—none at least so near to its beginning as the year of Euclides or Eucles, B. C. 426, or so remarkable as that which Aristotle alludes to in his Meteorologica, and refers to the year of Eucles, the son of Molo.

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[b] i. 23.

Now, such was the construction, and such the details, of the Metonic calendar, that there were only three years in every cycle in which the first of Gamelion could fall so close to the Metonic date of the winter solstice, or to that of Eudoxus, December 25 or December 28, as to justify this language in dating the appearance of the comet both in Gamelion, in the civil calendar of the time being, and at or about the winter solstice in the natural or tropical year. These were the *second* year of the cycle, in which the first of Gamelion fell December 29, at 18 h.; the *tenth*, in which it fell December 30, at 18 h.; and the *eighteenth*, on which it fell December 31, at 18 hours. In any of these years, a comet which appeared at the beginning of Gamelion, might be described as appearing also, Περὶ τροπὰς ὄντος τοῦ ἡλίου χειμερινάς.

If then we may assume that the names and succession of the archons from B. C. 432 to B. C. 395, the last year of the second cycle of Meton, are so settled in the modern tables as to admit of no change either *absolutely* or *inter se*, the *first* year of which the coincidence in question could hold good would be the *second* year of the third cycle, B. C. 393 to B. C. 392; in which the first of Gamelion fell December 29, at 18 h. B. C. 393. Now the archon of this year in particular has been mentioned by name by no ancient authority but Diodorus Siculus[c]; and Diodorus is often chargeable with so much inexactness, not to say carelessness, with respect to the names and order of the Athenian archons, that his statements of that kind can never be considered decisive in a particular instance, unless they are corroborated by other testimony also. He gives *this* archon the name of Demostratus; and yet *that* name comes over again in his list[d] three years after, as the name of the archon of B. C. 390; and there *his* testimony is confirmed by extant inscriptions[e]. This coincidence of two archons of the same name, within three years of each other, would be unexampled in the whole list from beginning to end, as far as anything is known about it at present.

[c] xiv. 90.

[d] xiv. 99.

[e] Corpus Inscript. No. 151: i. 238, 239: Pars ii. Class. ii. Panathenaic archons, four years asunder. Eubulides, B. C. 394: Demostratus, B. C. 390: Mystichides, B. C. 386.

That there has been some confusion respecting the proper name of the archon of this particular year, the reader may see from the Fasti of Mr. Clinton[f]. In our opinion this year did in reality belong to the Eucles of Aristotle, and in this instance his name ought to be substituted for that of Demostratus*. It is very observable that Aristotle called him the son of Molon. Now it appears to have been the rule among the Greeks, to give the eldest son the name of his grandfather†. If this Eucles then had a son, he would probably bear the name of the father of Eucles, Molon ; and if Eucles was of the archontic age (about 41 or 42) B. C. 393, this son of his, Molon, might then be 11 or 12 years old, and therefore himself too be of the archontic age 30 or 31 years afterwards. And it is remarkable, that just 31 years after B. C. 393, viz. B. C. 362, the name of the archon is actually Molon‡.

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* It is no objection that, according to Corsini (Fasti Attici, iii. 234.) Joannes Grammaticus, quoting the passage from Aristotle, added another designation to the name of this Eucles, *Εὐκλέους τοῦ Μόλωνος, τοῦ μετὰ Διότιμον.* This further designation is not found in Aristotle. Diotimus however was the name of the archon next before Euclides, B. C. 427, and no doubt the reason of the addition was that Joannes took this Euclides of the tables, B. C. 427, to have been the Eucles of Aristotle.

† Vota pater solvit, nomenque imponit avitum.
Iphis avus fuerat. Ovid, Metam. ix. 707.

*Ἐγὼ δὲ τοῦ πάππου 'τιθέμην Φειδωνίδην.* Nubes, 65.
Cf. *Φείδωνος υἱὸς Στρεψιάδης Κικυννόθεν.* Ib. 134.

*Ὥσπερ εἰ λέγοις*
*Ἱππόνικος Καλλίου κἀξ Ἱππονίκου Καλλίας.* Aves, 283.

Lucian, i. 514. 17. 69. Contemplantes: *Καὶ τοὔνομα τοῦ πατρὸς τιθέμενος.* The rule in question is illustrated by Demosthenes, xliii. 99. in the case of Sositheus, who is there represented as giving his eldest son his own father's name, and his next son that of his mother's father: *Τῷ μὲν πρεσβυτάτῳ τὸ τοῦ πατρὸς τοῦ ἐμαυτοῦ ὄνομα Σωσίαν, ὥσπερ καὶ δίκαιόν ἐστι, καὶ ἀπέδωκα τῷ πρεσβυτάτῳ τοῦτο τὸ ὄνομα· τῷ δὲ μετ' αὐτὸν γενομένῳ τούτῳ ἐθέμην Εὐβουλίδην, ὅπερ ἦν ὄνομα τῷ πατρὶ τῷ τῆς μητρὸς τοῦ παιδὸς τούτου, κ', τ. λ.*

‡ The Ecclesiazusæ of Aristophanes (as it would be possible to shew) were probably acted at the Lenæa, B. C. 391—that is, those of the archon

[f] Vol. ii. Introduction, p. xii.

xxii. Period i. 43, Cycle iii. 5, B. C. 390—389.

Hecatombæon 1, July 2, 18 h. B. C. 390, *Plenus.*
Thargelion 1, May 22, 18 h. B. C. 389, *Cavus.* Ex. 27.

Thargelion 7, May 29. B. C. 389.

next to that of this year, B. C. 393, whose name in the tables is Philocles. It is much to be regretted that neither in the argument of this Play, nor in the Scholia upon it, is any mention found of the names of the archons before or after it. Marmora Didascalica are extant, which ascertain the names of Diophantus (B. C. 395–394) and of Nicoteles (B. C. 391–390), respectively. It is an observable coincidence however, that though the date of this play was very near that of the appearance of the comet of Aristotle, in the year of Eucles (if that was really B. C. 393–392), it was notwithstanding twelve or thirteen months later; which may account for the absence of any allusion to such a phenomenon in the play itself.

It is still more worthy of remark, that though Aristotle is the only authority for the appearance of a comet at or about the winter solstice, in the year of an archon whom he styled Eucles, the son of Molo, mention is made of a phenomenon of that kind, at the same season of the year, in the fourth book of the Morbi Vulgares, or Ἐπιδημίαι, of Hippocrates. The reference to the phenomenon in question, in that book, is as follows: iii. 523. 14: Ἡλίου χειμερινέων τροπέων, ἄστρον οὐ σμικρὸν, πέμπτῃ δ' ὕστερον ἑκάστων σεισμός.

The learned have hitherto referred this allusion either to the year of Eucles, understood of that of Euclides, B. C. 427, or to the year of Asteius, B. C. 373 or 372. In our opinion it would be much more consistent with the chronology of the life of Hippocrates, as well as with the circumstances of the appearance itself, to refer it to this year, B. C. 393. The authorship of the fourth book of the Morbi Vulgares is a doubtful point. Galen however tells us the first and the third were unanimously attributed to Hippocrates, and the second, *fourth*, and sixth, almost as generally to Thessalus his son: cf. Opp. vii. 854. 8—855. 9. Περὶ δυσπνοίας, ii. 8: ix. 859. 15. Περὶ κρισ. ἡμ. ii. 4: 890. 11—891. 10. ib. iii. 1: 913. 11–13. iii. 6: xv. 11. 5-8. Also Antyllus apud Stob. Florileg. iii. 322. ci. 15. We hope to see hereafter that though the date of this comet, B. C. 393, would not suit the age of Hippocrates at the time, it would be perfectly consistent with that of Thessalus, his son.

It deserves to be remarked, that the words of the writer, Πέμπτῃ δ' ὕστερον ἑκάστων σεισμὸς, as they stand at present, authorize the inference that the appearance of the comet and the winter solstice both happened the same day, and the earthquake the fifth day after *each*. We may see reason hereafter to conclude that the calendar followed by Thessalus was that of Eudoxus, in which the winter solstice was dated Dec. 28 or 29. And that would be the very day of the appearance of the comet, if it happened on the first of Gamelion, reckoned from sunset, the night of Dec. 29, B. C. 393.

The fortieth birthday of Plato, reckoned from Thargelion 7 B. C. 428[g]. In this fortieth year, and consequently some time between Thargelion 7, Cycle iii. 5, May 29, B. C. 389, and the same day, Cycle iii. 6, May 18, B. C. 388, he must have made his first visit to Sicily; as he tells us himself[h]: *Ὅτε γὰρ κατ' ἀρχὰς εἰς Συρακούσας ἐγὼ ἀφικόμην σχεδὸν ἔτη τετταράκοντα γεγονὼς, Δίων εἶχε τὴν ἡλικίαν ἣν τὰ νῦν Ἱππαρῖνος γέγονε.* He visited Sicily thrice; once in the reign of the elder Dionysius, twice in that of the younger[i]: and it was on this first occasion, and at the instigation of Dionysius, that, when he left Sicily again, he was sold as a slave by the Lacedæmonian Pollis to the Æginetæ, who were then at war with the Athenians[k]. The ancients add, that he was ransomed by Annikeris, of Cyrene, who touched at Ægina on his way to the Olympic games; which ascertains the year as that of Olympiad xcviii. B. C. 388, when the games were celebrated July 20–25. They have added also that Pollis[l], to whom Dionysius entrusted the execution of this scheme, was the same whom Chabrias afterwards defeated at Naxus, B. C. 376; and who perished at last in the earthquake and inundation which swallowed up Helike and Bura, B. C. 373, or 372 *.

xxiii. The Magna Compositio[m] supplies the dates of three eclipses of the moon, recorded by Hipparchus, *Ἀπὸ τῶν ἐκ Βαβυλῶνος διακομισθεισῶν,* in terms both of the archontic year and of the Attic month. These we will briefly consider.

The first was dated, *Ἄρχοντος Ἀθήνῃσι Φανοστράτου, μηνὸς Ποσειδεῶνος*: Nabonassar 366, *Θὼθ κϛ′ εἰς τὴν κζ′, μετὰ ε′ ∸″* (5½) *ὥρας καιρικὰς τοῦ μεσονυκτίου, ἐπειδὴ λοιπὸν ἦν τῆς νυκτὸς ἡμιώριον*; which Ptolemy, for the meridian of Alexan-

* The genuineness indeed of the Epistles ascribed to Plato has been doubted; but that doubt does not affect the chronology of this visit, to which this seventh Epistle may still be a competent witness.

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[g] Supra, page 31.

[h] Opera, Pars iii. tom. iii. 427. 7: Epistol. vii. *Τοῖς Δίωνος οἰκείοις κ̀, τ. λ.*

[i] Athenæus, xi. 116: Plutarch, Dion, iv. v. xi. xiii. xviii.: Apuleius, ii. 160 b: De Habitudine, i.: Diogenes Laertius, iii. i. xiv.–xvi. 18–23: A. Gellius, xvii. 21.

[k] Plutarch, Dion, v.: Diodorus Sic. xv. 2. 7.

[l] Diogenes Laertius, iii. 20: cf. Scholia in Aristot. 355. 47 a. Physicæ Ausc. lib. ii. Cf. Corsini, Fasti Attici, iii. 303, 304.

[m] iv. x. Opp. i. 275–279.

dria, and in equinoctial time, reduces to Thoth 26, 18 h. 15 m. from noon.

| | | | h. | m. |
|---|---|---|---|---|
| That is, to | Nab. 1 | Thoth 1 | 0 | 0 |
| Add | 365 | 25 | 18 | 15 |
| Date of the eclipse | Nab. 366 | Thoth 26 | 18 | 15 |

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| B. C. 383 | November 27 | 0 | 0 | Nab. 366 | Thoth 1 | 0 | 0 |
| Add | 25 | 18 | 15 | | 25 | 18 | 15 |
| | December 23 | 6 | 15 A. M. | | Thoth 26 | 18 | 15 |
| | | | | | = 27 | 12 | 15 |

For the Attic date—

Period i. 50. Cycle iii. 12. B. C. 383–382. Phanostratus.

Hecatombæon 1 July 14 18 h. B. C. 383. *Cavus.* Ex. 15.
Posideon 1 Dec. 8 18 h. — — *Plenus.*

| | | h. | m. | | h. | m. |
|---|---|---|---|---|---|---|
| Posideon 1 | | 0 | 0 | Dec. 8 | 18 | 0 |
| Add | 14 | 12 | 15 | 14 | 12 | 15 |
| Posideon 15 | | 12 | 15 | Dec. 23 | 6 | 15[o] |

The second was dated the same year: *Ἄρχοντος Ἀθήνησι Φανοστράτου, Σκιροφοριῶνος μηνὸς, κατ᾽ Αἰγυπτίους δὲ Φαμενὼθ κδ΄ εἰς τὴν κε΄*: one hour after the rising of the moon: which Ptolemy, for the meridian of Alexandria, reduces to Phamenoth 24, 8 h. 15 m. from noon.

| | | | h. | m. |
|---|---|---|---|---|
| That is, | Nab. 1 | Thoth 1 | 0 | 0 |
| Add | 365 | 203 | 8 | 15 |
| Date of the eclipse | Nab. 366 | 204 | 8 | 15 |
| | Cast off | 180 | | |
| | Phamenoth | 24 | 8 | 15 = June 18, 20h. 15m. B. C. 382. |

For the Attic date.

Period i. 50. Cycle iii. 12. B. C. 383–382. Phanostratus.

Hecatombæon 1 July 14 18 h. B. C. 383. *Cavus.* Ex. 15
Skirrhophorion 1 June 3 18 h. B. C. 382. *Plenus.*

| | | h. | m. | | h. | m. | |
|---|---|---|---|---|---|---|---|
| Skirrhophorion 1 | | 0 | 0 | June 3 | 18 | 0 | B. C. 382 |
| Add | 15 | 2 | 15 | 15 | 2 | 15 | |
| Skirrhophorion 16 | | 2 | 15 | June 18 | 20 | 15[p] | |

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[o] Cf. the Introduction to the Tables of the Fasti, 292. No. viii.

[p] Ibid. No. ix.

The third was dated, *Ἄρχοντος Ἀθήνησιν Εὐάνδρου, μηνὸς Ποσειδεῶνος τοῦ προτέρου, κατ᾽ Αἰγυπτίους Θὼθ ις′ εἰς τὴν ιζ′*, at four hours from the beginning of night; which Ptolemy reduces to Thoth 16, 10 h. 30 m. from noon, Nab. 367.

| | | | h. | m. | |
|---|---|---|---|---|---|
| That is, to | Nab. 1 | Thoth 1 | 0 | 0 | |
| Add | 366 | 15 | 10 | 30 | |
| Date of the eclipse | Nab. 367 | Thoth 16 | 10 | 30 | = Dec. 12, 22 h. 30 m.<br>B. C. 382. |

For the Attic date.

Period i. 51. Cycle iii. 13 (intercalary) B. C. 382–381. Evander.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | July 3 | 18 h. | B. C. 382 | *Plenus.* |
| Posideon A. 1 | Nov. 28 | 18 h. | B. C. 382 | *Cavus.* Ex. 9. |

| | | h. | m. | | | h. | m. |
|---|---|---|---|---|---|---|---|
| Posideon A. | 1 | 0 | 0 | November | 28 | 18 | 0 |
| Add | 15 | 4 | 30 | | 14 | 4 | 30 |
| Posideon A. | 16 | 4 | 30 | December | 12 | 22 | 30[q] |

This archon, whose proper name is thus ascertained to have been Evander, in Diodorus[r] is Menander. He appears however, under his right name, in Demosthenes[s]: and we consider it extremely probable that the twenty-sixth Oration of Lysias, which, though *ἀκέφαλος*, or destitute of the Procem at present, is entitled, *Ὑπὲρ τῆς Εὐάνδρου δοκιμασίας*, related to the *δοκιμασία* * of this very archon. For it was delivered on the last day but one of the preceding official year[t], after the election of this Evander to some office, from which it was the object of the speech to set him aside; the office itself being one on which he must otherwise enter the day but one after[v], which would constitute him *ἄρχων* alone, i. e. *ἐπώνυμος*, and give him a seat in the Areopagus[x]. The date of the speech on this hypothesis is determined to Skirrhophorion 29, Cycle iii. 12, July 2, B.C. 382, the day before the *Ἐξιτηρία*[y]. Lysias was certainly alive at this time; if, as Dionysius of Halicarnassus tells us[z], he died only in the year of Nausinicus, B.C. 378, or at the earliest in that of Nico, B.C. 379.

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* Pollux, viii. vi. 881. 44: *Δοκιμασία δὲ τοῖς ἄρχουσιν ἐπηγγέλλετο, καὶ τοῖς κληρωτοῖς καὶ τοῖς αἱρετοῖς, εἴτ᾽ ἐπιτήδειοί εἰσιν ἄρχειν εἴτε καὶ μή.* This probation therefore must have been undergone between the time of their election, and that of their entering on office; and, to judge from what took place on this occasion, immediately after their election. Harpocration, *Δοκιμασθείς· Λυκουργὸς δ᾽ . . . γ′ δοκιμασίαι κατὰ τὸν νόμον, φησὶ, γίνονται, μία μὲν ἣν οἵ τ᾽ ἄρχοντες δοκιμάζονται, ἑτέρα δὲ ἣν οἱ ῥήτορες, τρίτη δὲ ἣν οἱ στρατηγοί.* Cf. Suidas, *Δοκιμασθείς.* The first, no doubt, intended to try those who were to administer the law, and to execute justice; the second, to ascertain the fitness of those who claimed to advise the people, and to direct their counsels; the third, the competency of those who were to command the armies, and to fight the battles, of the republic.

[q] Cf the Introduction to the Tables of the Fasti, 292. No. x.

[r] xv. 20.

[s] xxiv. 157.

### xxiv. Period i. 55. Cycle iii. 17. B.C. 378–377.

| | | | |
|---|---|---|---|
| Hecatombæon 1 | July 18, 18 h. | B. C. 378, | *Plenus.* |
| Boëdromion 1 | Sept. 15, 18 h. | — — | *Plenus.* |

Boëdromion 19. October 4.

Date of the attempt of Sphodrias to surprise the Piræus[a], and of his march from Thespiæ by night. It was defeated by the appearance of the *Δᾷδες μυστικαὶ*, when he had got as far as the Thriasian Plain, or Eleusis. *Σφοδρίου τοίνυν ὕστερον ὁρμηθέντος ἐκ Θηβῶν ἤρκεσαν αἱ δᾷδες φανεῖσαι κατασβέσαι τὴν τόλμαν*[b]. This fixes the attempt to the season of the Mysteries, and to the fifth of the mystical feriæ, Boëdromion 19, the *Λαμπάδων ἡμέρα*. The march consequently was made on the night of October 3; and as there was a lunar eclipse Sept. 30 previously, 7.30 P. M. Paris, the moon was only 18 days old, and Sphodrias would have moonlight for the greater part of the night.

### xxv. Period i. 57. Cycle iii. 19. B.C. 376–375.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | June 26, 18 h. | B. C. 376, | *Cavus.* | Ex. 18. |
| Boëdromion 1 | Aug. 24, 18 h. | — — | *Cavus.* | Ex. 21. |

| | |
|---|---|
| Boëdromion 1 0 h. | Aug. 24 18 h. B. C. 376. |
| Add 15 | 14 |
| Boëdromion 16 0 h. | Sept. 7 18 h. |

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[t] § 8–10. 13. 30: 17–19. 26.

[v] § 8.

[x] § 14.

[y] Cf. vol. i. 534.

[z] Lysias, 12, pag. 479. 1–5: cf. Plutarch, Decem Oratores, xiii. Lysias.

[a] Hellenica, v. iv. 21. cf. 15, 16: Plutarch, Pelopidas, xiv.

[b] Aristides, xix. 419. 9. Eleusinius. Cf. Plutarch, Agesilaus, xxiv.

Date of the victory of Chabrias at Naxus[c]: which Plutarch dates in one instance[d], *Βοηδρομιῶνος ἕκτῃ μεσοῦντος*; in another, on the *πανσέληνον* of that month *[e]; in a third, on the *Ἕκτῃ ἐπὶ δέκα*[f]: and that this was the true date, appears from Polyænus[g], who shews that the battle was fought and won on the *ἅλαδε μύσται*, the second of the mystical feriæ, Boëdromion 16. His text indeed, in the reading of the name of this day, is corrupt; but the true reading is easily recoverable from the corruption itself: especially when compared with Hesychius, in *ἅλα δέννσται*.

It appears from Xenophon[c], that the object of this battle was to clear the way for the arrival of the *πλοῖα σιταγωγὰ* from the Hellespont at Athens, as usual; which the Lacedemonian fleet was intercepting between the promontory of Geræstus in Eubœa and Athens. This so far confirms the date, September 8; the corn-ships from the Pontus in particular, as we saw supra[h], being generally on their way homewards about the beginning of that month.

xxvi. Period i. 58. Cycle iv. 1. B. C. 375–374.

Hecatombæon 1 July 16, 18 h. B. C. 375, *Plenus.*
Skirrhophorion 1 June 6, 18 B. C. 374, *Plenus.*

Skirrhophorion 12 June 18 B. C. 374.

Date of the victory of Timotheus at Leucas[i], on the holiday of the *Σκίρα*. Skirrhophorion 12[k], as we learn from Polyænus[l]. This explains the allusion to the heat (*καῦμα*) at the time of the battle[m]. This victory, having been later than that of Naxus[n], B. C. 376, could not have been gained earlier than Skirrhophorion 12 B. C. 375, which would have been June 28, almost midsummer-day itself.

* Note here, that Boëdromion this year being cavus, the full moon (*πανσέληνον*) and the sixteenth of that month this year would be the same. See vol. i. 505, *note*.

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[c] Hellenica, v. iv. 61: Diodorus, xv. 28. 34, 35: cf. Æschines, iii. 223: Demosthenes, xiii. 25: xx. 85, 86. 89, 90: xxiii. 237: Dinarchus, i. 76: Polyænus, iii. xi. Chabrias, § 11: Frontinus, i. xii. 12.

[d] De Gloria, vii.

[e] Camillus, xix.

[f] Phocion, vi.

[g] iii. xi. Chabrias, 2.

[h] Vol. i. 514 *n*.

[i] Hellenica, v. iv. 65.

[k] Scholia ad Ecclesiazusas, 18: cf. Thesmophoriazusas, 841.

[l] iii. x. Timotheus, 4. cf. 12; 17. 11. Frontinus, i. xii. 11: ii. v. 47: Isocrates, xv. 115 sqq.: Cornelius Nepos, Timotheus, ii. 2. Diodorus Sic. xv. 36.

[m] Polyænus, iii. x. 12.

[n] Cf. Hellenica, v. iv. 61.

xxvii. i. Period i. 59. Cycle iv. 2. B. C. 374–373.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | July 6, | 18 h. | B. C. 374, | *Cavus.* Ex. 18. |
| Munychion 1 | March 27, | 18 | B. C. 373, | *Plenus.* |

ii. Period i. 60. Cycle iv. 3. B. C. 373–372.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | June 24, | 18 h. | B. C. 373, | *Plenus.* |
| Mæmacterion 1 | Octob. 20, | 18 | B. C. 373, | *Plenus.* |
| Thargelion 1 | May 15, | 18 | B. C. 472, | *Cavus.* Ex. 21. |

These dates occur in Demosthenes, *πρὸς Τιμόθεον*[o]: the first ᾽Επὶ *Σωκρατίδου*[p], the second ᾽Επ᾽ ᾽Αστείου[q], the third ᾽Επ᾽ ᾽Αστείου also[r]: and they serve to illustrate the circumstances of that oration, and the personal history of Timotheus, from the time of the expedition against Mnasippus, in Corcyra[s], as low down as the year of Alkisthenes[t], B. C. 372–371, or even as that of Dyskinetus, B. C. 370–369, in which (as we learn from the Oratio in Stephanum ii[v]) Pasio died; whose death is mentioned here[x].

xxviii. Period i. 61. Cycle iv. 4. B. C. 372–371.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | July 13, | 18 h. | B. C. 372, | *Cavus.* Ex. 24. |
| Skirrhophorion 1 | June 3, | 18 | B. C. 371, | *Cavus.* Ex. 9. |

| | | | | |
|---|---|---|---|---|
| Skirrhophorion | 1 | 0 h. | June 3 | 18 h. |
| Add | 13 | | Add 12 | |
| Skirrhophorion | 14 | 0 | June 15 | 18 |

Date of the Σπονδαὶ before Leuctra[y], June 16 B. C. 371.

xxix. Period i. 62. Cycle iv. 5. B. C. 371–370.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | July 2, | 18 h. | B. C. 371, | *Plenus.* |

Hecatombæon 5 July 7.

Date of the battle of Leuctra, in the Attic calendar[z]. Demosthenes contra Neæram[a] dated both this battle, and the peace before it, ᾽Επὶ *Φρασικλείδου*; which was correct, as regarded the battle, but slightly in error as regarded the peace, an event of the year of Alkisthenes, 15 or 16 days before its termination.

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[o] xlix.

[p] § 7. cf. 52. 12 : 16, 17.

[q] § 11–25 : 72.

[r] § 31: 69.

[s] Xenophon, Hellenica, vi. ii. 4–11.

[t] § 31, 32. 33.

[v] xlvi. 15.

[x] § 49, 50: cf. 81. and 59–72.

[y] Plutarch, Agesilaus, xxviii.

[z] Plutarch, Camillus, xix: Agesilaus, xxviii. cf. Hellenica, vi. iv. 6 : 16: Diodorus, xv. 52–56.

[a] lix. 49.

Between the truce so concluded at Sparta, Skirrhophorion 14, and the battle, Plutarch reckoned the interval at *twenty* days: and as Skirrhophorion was an hollow month this year, if we add 20 to Skirrhophorion 14, and cast off 29 from the sum, it leaves the 5th of Hecatombæon as the date of the battle: but if we add 20 to June 16, and cast off 30 from the sum, it leaves July 6 as the date of the battle, the 4th of Hecatombæon for the time being, not the 5th. It is to be observed however that the date in the Bœotian calendar was Hippodromius 5[b], which, as we shall see hereafter, corresponded to July 6, just 20 days after the *σπονδαὶ,* June 16. The date of the battle, no doubt, was first and properly the Bœotian one.

xxx. Period i. 65. Cycle iv. 8. B. C. 368–367.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | June 29, 18 h. | B. C. 368, | *Cavus.* | Ex. 3. |
| Anthesterion 1 | Feb. 20, 18 | B. C. 367, | *Cavus.* | Ex. 15. |

Anthesterion 11–13 March 3–5 B. C. 367.

Date of the Lenæa at which Dionysius the elder gained the Prize[c]; from which we collect the date of his death, March or April this year also, and that of the commencement of his reign, 38 years complete before[d], B. C. 405.

xxxi. i. Period i. 66. Cycle iv. 9. B. C. 367–366.

| | | | |
|---|---|---|---|
| Hecatombæon 1 | July 17, 18 h. | B. C. 367, | *Plenus.* |
| Skirrhophorion 1 | June 7, 18 | B. C. 366, | *Plenus.* |

ii. Period i. 69. Cycle iv. 12. B. C. 364–363.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | July 14, 18 h. | B. C. 364, | *Cavus.* | Ex. 15. |
| Posideon 1 | Dec. 8, 18 | —— | *Plenus.* | |

The first of these dates occurs in Demosthenes[e], Ἐπὶ Πολυζήλου: the second[f] Ἐπὶ Τιμοκράτους. The archons between, Cephisodorus, B. C. 366, and Chion, B. C. 365, are both mentioned[g]. In this latter year (Period i. 68, Cycle iv. 11), which was intercalary, there would be a second Posideon[h]. The date of the oration itself is determinable[i] to three years after the marriage alluded to, in Skirrhophorion (Polyzelus), B. C. 366, June 7, 18 h.—July 7, 18 h.: that is, to some time before Skirrhophorion, in the year of Timocrates, Period i. 69, Cycle iv. 12, June 3, 18 h.—July 3, 18 h., B. C. 363. Cf. the Oration contra Midiam[k], which throws further light on these things.

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[b] Camillus, xix.

[c] Diodorus, xv. 71. 73. 74.

[d] Cf. Diodorus, xiii. 96: 80: 91: The Parian Chron. Epocha lxiii: lxxv. Hellenica, vii. i. 28: iv. 12: Dionysius Hal. Ant. Rom. vii. 1: Cicero, Tusculanæ, v. 20, 57: De Natura, iii. 33, 81: Helladius, apud Photium, Bibl. Codex, 279. 530. 30 &c.

[e] xxx. 15. πρὸς Ὀνήτορα α'.

[f] § 15.

[g] § 17.

[h] Cf. § 26, 27: 34: 36.

### xxxii. Period i. 68. Cycle iv. 11. B. C. 365–364.

| | | | |
|---|---|---|---|
| Hecatombæon 1 | June 25, 18 h. | B. C. 365, *Cavus.* | Ex. 27. |
| Skirrhophorion 1 | June 14, 18 | B. C. 364, *Plenus.* | |

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Skirrhophorion | 1 | 0 | 0 | 0 | June | 14 | 18 | 0 | 0 | B.C. 364. |
| | 28 | 17 | 25 | 34 | | 28 | 17 | 25 | 34 | |
| Skirrhophorion | 29 | 17 | 25 | 34 | July | 13 | 11 | 55 | 34 | |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| By Pingré ☽ eclipsed | July 13 | 10 | 30 | 0 | Paris. |
| | July 13 | 11 | 55 | 34 | Athens. |

Date of the eclipse of the sun before the death of Pelopidas, which happened as he was setting out on his expedition to Thessaly[l]; and in his *thirteenth* Bœotarchy[m], the first having been that of the year after the recovery of the Cadmeia, B. C. 379 *exeunte*. There was no solar eclipse in the year of Timocrates, in which Diodorus dates his death[n], but this; nor any the next year, B. C. 363, but that of July 3, at 3.15 A. M., too early to have been visible in Greece, and that of Nov. 27, at 9 A. M., too late in the year to have been that which preceded the death of Pelopidas.

The calendar was now fast approaching to the end of the first Period of 76 years; and this eclipse is seen to have fallen on the 29th of the month, not the 30th or the 1st: i. e. it was already one day in advance of the moon.

### xxxiii. Period i. 70. Cycle iv. 13. B. C. 363–362.

| | | |
|---|---|---|
| Hecatombæon 1 | July 3, 18 h. | B. C. 363, *Plenus.* |
| Skirrhophorion 1 | June 22, 18 | B. C. 362, *Plenus.* |

Skirrhophorion 12 July 4.

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[i] Cf. 34: 36: 15: 17.

[k] xxi. 99–105.

[l] Plutarch, Pelopidas, xxxi–xxxv: Diodor. Sic. xv. 78: 80, 81.

[m] Pelopidas, xxxiv.

[n] Diodor. xv. 81.

Date of the battle of Mantinea[o]; and also of the Skira in the Athenian calendar[p]. The harvest was ready about Mantinea at this time; on which coincidence, see supra[q]. The attempt on Sparta before the battle was some days earlier[r]; consequently nearer the beginning of the month. Orosius dates it *Intempesta nocte*[s]. Frontinus too implies that the march back from Sparta to surprise Mantinea* was made under similar circumstances[t].

xxxiv. Period i. 71. Cycle iv. 14. B. C. 362–361.

| | | | | |
|---|---|---|---|---|
| Hecatombæon 1 | July 22, 18 h. | B. C. 362, | *Cavus.* | Ex. 21. |
| Metageitnion 1 | Aug. 20, 18 | | *Plenus.* | |

| | |
|---|---|
| Metageitnion 24 | Sept. 13. |
| — 30 | — 19. |

Both these dates occur in Demosthenes[v]; and both, as we have shewn[x], in reference to the same occasion. The most observable circumstance is that the corn-ships from the Pontus were expected about this time[y]: and that such must have been the time when they were usually expected, may be inferred from the date of the victory at Naxus[z]. The same fact is implied of the next year, Period i. 72, Cycle iv. 15, Metageitnion 30, Sept. 7, after the expiration of Apollodorus' term of service[a]. It appears from the same testimony that the departure of these ships was always some time before the heliacal rising of Arcturus[b] (Sept. 16). As a general rule then, it may be assumed that their arrival at Athens every year was, or should have been, the end of Metageitnion or beginning of Boëdromion.

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* Epaminondas on that occasion made a march of 40 Roman miles in one night and by noon the next day.

[o] Plutarch, De Gloria, vii: Hellenica, vii. v. 14–27: Diodorus, xv. 84. 89. 82.

[p] No. xxvi. supra, p. 82.

[q] Vol. i. 163.

[r] Hellenica, vii. v. 9–21: Diodor. Sic. xv. 82–84 (cf. 78): 85. 88: Plutarch, De Gloria, vii: Agesilaus, xxxiv: xxxv: Polybius, ix. 8. § 2–12.

[s] iii. 2. 153. cf. Justin, vi. 7.

[t] iii. xi. 5.

[v] l. 5: li. 4.

[x] Vol. i. 512 sqq.

[y] l. 6. 22.

[z] No. xxv. p. 81.

[a] l. 19–22. 25.

[b] Cf. also xxxv. 10–14.

xxxv. Period i. 71, Cycle iv. 14, B. C. 362—361.

Hecatombæon 1, July 22, 18 h. B. C. 362, *Cavus*. Ex. 21.
Munychion 1, April 13, 18 h. B. C. 361, *Cavus*. Ex. 3.

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Munychion | 1 | 0 | 0 | 0 | April | 13 | 18 | 0 | 0 | B. C. 361. |
| Add | 29 | 22 | 6 | 50 | | 28 | 22 | 6 | 50 | |
| Munychion | 30 | 22 | 6 | 50 | May | 12 | 16 | 6 | 50 | |

By Pingré ☽ eclipsed May 12 15 15 0 Paris, B. C. 361.
May 12 16 6 50 Syracuse.

Date of the eclipse of the sun, predicted by Helicon of Kyzicus[c] at the time of Plato's third visit to Sicily, in the reign of Dionysius the younger. His second visit therefore (in order to have come in the reign of Dionysius the younger) must have been made between the Lenæa, B. C. 367[d], and the date of this eclipse, May 12, B. C. 361 *.

* There was a solar eclipse also the next year, B. C. 360, May 1, at 4 30 P.M. Paris; but we think it more probable the eclipse predicted by Helicon was that of May 12, the year before, than this of May 1, the year after: for we have little doubt that the prediction was made by means of the *saros* of antiquity; and this eclipse of May 12, B.C. 361, was the first of the 28th cycle of the Egyptian saros (see our F. Catholici, iv. 107.) and might easily have been foreseen from that; especially after the eclipse of May 2, B. C. 379, at 8 or 9 A. M. the first eclipse of the cycle before.

Plutarch tells us (Dion xix.) the eclipse happened when Dion was in banishment; but Plato had not yet left Sicily again. The viith epistle of Plato (Pars iii. tom. iii. 437. 7–14.) gives us to understand that Dion was expelled in the *fourth* month after *his* arrival; which on this principle must have been more than *four* months before May 12, B. C. 361, at least. That epistle was written after the death of Dion, 480. 10: i. e. after B. C. 354 or 353. It tells us also (477. 12.) that after Plato himself left Sicily he met Dio at the Olympic games (a fact stated by Neanthes of Kyzicus, apud Diogen. Laert. iii. 1. xx. § 25.) not necessarily the same year, but very probably the next, B. C. 360, which was actually Olympiad cv: when the games were celebrated July 10—15. Diodorus Sic. xvi. 6. dates the banishment of Dion, B. C. 358 (Cephisidotus) which is two or three year too late. But he dates the commencement of the preparations for hi expedition the same year, and that may have been correct.

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[c] Plutarch. Dio xix. Of Helicon of Kyzicus' recommendation to Dionysius by Plato, see Plutarch, De Vitioso pudore, xi. cf. De Genio Socratis, vii.

[d] No. xxx. p. 84.

xxxvi. Period i. 75, Cycle iv. 18, B. C. 358—357.

Hecatombæon 1, July 7, 18 h. B. C. 358, *Plenus.*
Boëdromion 1, Sept. 5, 18 h. *Cavus.* Ex. 3.

| | | | |
|---|---|---|---|
| Boëdromion | 1 | Sept. | 6 |
| | 25 | | 24 |
| Boëdromion | 26 1 h. | | 30 |

This date occurs in Demosthenes, De Corona[e], and Corsini refers it to Ol. cv. 3, B. C. 358, during the siege of Imbrus, by Philip[f].

xxxvii. Period i. 76, Cycle iv. 19, B. C. 357—356.

Hecatombæon 1, June 26, 18 h. B. C. 357, *Cavus.* Ex. 18.
Metageitnion 1, July 25, 18 h. —— *Plenus.*

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Metageitnion | 1 | 0 | 0 | 0 | July | 25 | 18 | 0 | 0 | B. C. 357. |
| Add | 15 | 2 | 10 | 34 | | 15 | 2 | 10 | 34 | |
| Metageitnion | 16 | 2 | 10 | 34 | Aug. | 9 | 20 | 10 | 34 | |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| By Pingré ⊙ eclipsed August | 9 | 18 | 45 | 0 | Paris, B. C. 357. |
| —— | 9 | 20 | 10 | 34 | Athens. |

Lunar eclipse, when Dio was preparing to set out from Zakynthus, on his expedition to Sicily; on the night, in fact, of the departure itself[h]. Plutarch specifies on the same occasion other criteria of the time of the year; the ἀκμὴ θέρους, the Etesian winds still blowing, a swarm of bees, and some time (not less than twelve or thirteen days) before the heliacal rising of Arcturus[i]; the earliest date of which for the latitude of Athens, by the Metonic calendar, was September 6. These notes of time are consistent, and taken together determine the commencement of proceedings in Sicily, which ended in the first expulsion of Dionysius, to September, B. C. 357 *.

* Whether this expulsion itself took place B. C. 357, or 356, or 355, is doubtful. Ælian tells us (De Natura Anim. x. 34.) that when Dionysius

xxxviii. Period i. 76, Cycle iv. 19, B. C. 357—356.

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[e] xviii. 147.

[f] Fasti Att. P. i. Diss. viii. 16. p. 349. cf. Diodorus, xvi. 8. 6.

[g] Plutarch, Dio, xxiii. xxiv. cf. Diodorus, xvi. 9.

[h] Plutarch, Nikias, xxiii.

[i] Dio, xxiii. xxiv. xxv.

Hecatombæon 1, June 26, 18 h. B. C. 357, *Cavus*, Ex. 18.
Skirrhophorion 1, June 16, 18 h. B. C. 356, *Plenus*.

Skirrhophorion 15, July 1, B. C. 356.

Date of the birth of Alexander the Great, in the Attic calendar; Loüs 6, in the Macedonian[k]: an important date in the latter Calendar, as we hope to see hereafter.

xxxix. i. Period ii. 2, Cycle v. 2, B. C. 355—354.

Hecatombæon 1, July 6, 18 h. B. C. 355, *Cavus*. Ex. 18.
Skirrhophorion 1, May 27, 18 h. B. C. 354, *Cavus*. Ex. 3.

ii. Period ii. 3, Cycle v. 3, B. C. 354—353.

Hecatombæon 1, June 25, 18 h. B. C. 354, *Plenus*.

Hecatombæon 11, July 6, B. C. 354.
—— 12, July 7, ——

These dates occur in Demosthenes, contra Timocratem[l]; from which we collect that the month Skirrhophorion, there alluded to[m], was the month so called of the preceding archontic year, and the two other dates[n], Hecatombæon 11

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evacuated the citadel of Syracuse on the first occasion, there were swallows with young ones there at the time, and that would be a note of the spring, at the earliest B. C. 356. *Ἡνίκα δὲ ἐξέλιπε τὴν ἀκρόπολιν τὸ πρότερον Διονύσιος συνανήχθησάν οἱ καὶ αἱ νεοττεύουσαι χελιδόνες ἐκεῖθι, καὶ ἐμαντεύοντο τὴν ἐπάνοδον.* The ancients assigned 38 years to the elder Dionysius, and 12 to the younger, 50 to both. Cf. Diodor. xv. 73: xvi. 31. 71. Plutarch (Dion xxviii.) reckoned it 48 years from the rise of the tyranny of the elder Dionysius to the first expulsion of the younger; which would be true generally of the spring of B. C. 357, but not of that of B. C. 356 or 355. And it may be collected from Diodorus xv. 89. 82. (cf. supra, xiii. 103. 80. 84.) 94, 95. that Philistus and Athanas, in consecutive histories, made 5 + 7, or 12 years, between the death of the first Dionysius and the expulsion of the second (cf. Diodorus xv. 73.), which would give the latter B. C. 355. Cf. Plutarch, Dio. xxxvii. xxxviii: Diodor. xvi. 15—17. Jerome in Chronico ad Ol. cvi. 1: cviii. 4: and cvi. 3.

[k] Plutarch, Alexander, iii.

[l] Oratio xxiv.

[m] § 15–19. cf. 17. 134. 182. compared with 29, 30–32. cf. Scholia of Ulpian, 262. p. 288. 2. *Ἐπεὶ δὲ ἐγγύς ἐστι τὰ Παναθήναια*, κ', τ. λ.

[n] xxiv. § 29–31. cf. 23 26. 33–37. 56. 46. 47. 82.

and 12, belonged to the year next in course; the latter the date of the Cronia also.

According to Dionysius of Halicarnassus[o], the date of this oration was Εὔδημος, *ὁ μετὰ Διότιμον*—B. C. 353. But it appears from its own testimony to have been delivered in a Panathenaïc year. The *ψήφισμα*, recited in it[p], proves that much: *'Επὶ τῆς Πανδιονίδος πρώτης, ἑνδεκάτῃ τῆς πρυτανείας, 'Επικράτης εἶπεν, ὅπως ἂν τὰ ἱερὰ θύηται καὶ ἡ διοίκησις ἱκανὴ γένηται, καὶ εἴ τινος ἐνδεῖ πρὸς τὰ Παναθήναια διοικηθῇ, τοὺς πρυτάνεις τοὺς τῆς Πανδιονίδος καθίσαι νομοθέτας αὔριον, κ̀, τ. λ.*: a proceeding forbidden by the laws on the 12th of Hecatombæon, or the Cronia, and excused, or attempted to be excused, in this instance, simply by the fact that the Panathenæa were near at hand[q]. Nor is it denied that the Panathenæa were at hand; only that that was a reason sufficient for a breach of the law; *Οὐδὲ γὰρ ἦν ὑπόλοιπον οὐδ' ἀδιοίκητον οὐδέν*[r].

The Panathenæa then were certainly at hand when this decree was passed; and the decree having been passed on the 12th of Hecatombæon, the Panathenæa must have been at hand soon after the 12th of Hecatombæon. If so, the Panathenæa Majora, celebrated on the 28th of Hecatombæon; not the Panathenæa Minora, celebrated every year on the 20th of Thargelion. The year of the Oration therefore must have been a greater Panathenaïc year; and B.C. 354 was a year of that description—the first of the 54th cycle, reckoned from the epoch of Hecatombæon 28, B. C. 566—but B. C. 353 was not. Notwithstanding therefore the statement of Dionysius to the contrary, we cannot hesitate to conclude that the true year of this Oration must have been B.C. 354, not B. C. 353[s]. It appears from its own testimony[t] that the accusation of Androtion had already taken place, and Dionysius himself dates that ἐπὶ Καλλιστράτου[tt], B.C. 355–354: and the case of Androtion and this of Timocrates were so connected, that if the former had come on under the archon of B. C. 355, the latter would follow under that of B. C. 354[v].

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[o] Epistola ad Ammæum, 4. 725.

[p] § 31.

[q] § 29. 30.

[r] § 32. cf. 33.

[s] Cf. A. Gellius, xv. 28. which dates these orations *κατὰ 'Ανδροτιῶνος*, and *κατὰ Τιμοκράτους*, when Demosthenes was 27 years old. He was 27 complete, and entered on his 28th year, Hecatombæon, B. C. 355.

[t] xxiv. 8–11: 143–147: 183–192: 193–197.

[tt] Ad Ammæum, 4. 725. 1–10.

### xl. Period ii. 5, Cycle v. 5, B. C. 352—351.

Hecatombæon 1, July 2, 18 h. B. C. 352, *Plenus.*
Mæmacterion 1, Oct. 28, 18 h. —— *Plenus.*

Date of the month Mæmacterion, alluded to in the third Olynthiac[x], when Philip was besieging the Ἡραῖον τεῖχος in Thrace, and the Athenians decreed the expedition, which they afterwards abandoned, upon hearing that he was sick. For this was three or four years before the date of that Oration[y], B. C. 349–348; consequently B. C. 352: confirmed by Olynth. i. 13, compared with Philipp. i. 13. 6: 20–47; the date of which was B. C. 352–351. If so, the Athenians decreed their expedition some time in Mæmacterion (i. e. after October 29), B. C. 352, not too late to take the sea on an urgent occasion, yet quite late enough for the expedition to be readily abandoned, on the first specious reason[z].

The end of this year was then mentioned, and then the first three months of the following one—Period ii. 6, Cycle vi. 6, Hecatombæon 1, July 22, Metageitnion 1, August 20, Boëdromion 1, September 19, B. C. 351. Τούτου τοῦ μηνὸς, says Demosthenes, μόγις μετὰ τὰ μυστήρια δέκα ναῦς ἀπεστείλατε. The mysteries this year fell late; Boëdromion 15–23, October 3–11, which might account for the smallness of the force with which at last they took the sea that year.

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[v] Plutarch, Demosth. xv. dates these three orations, κατὰ Ἀνδροτιῶνος, κατὰ Τιμοκράτους, and κατὰ Ἀριστοκράτους, as consecutive, and when Demosthenes was 32 or 33 years old; though when he was 28 or 29 would have been nearer the truth in the case of the first two. And even at the time of the oration κατὰ Ἀριστοκράτους, if that was B. C. 352, he must have been only in his 31st year.

[x] iii. 5. 6.

[y] Cf. xxxiii. 5. 29, 30. 33. a similar phrase.

[z] Cf. Ulpian, Scholia, p. 35. Olynth. iii. ad 60. 3. pen. Schol. August. 29–23. Reiskii. cf. Diodorus, xvi. 38. Aristodemus, (37.) Olymp. cvii. 1. B. C. 352—of Philip's attempt to pass the Pylæ, prevented by the Athenians.

xli. Period ii. 6, Cycle v. 6, B. C. 351—350.

Hecatombæon 1, July 21, 18 h. B. C. 351, *Cavus.* Ex. 30.
Anthesterion 1, Feb. 13, 18 h. B. C. 350, *Cavus.* Ex. 9.

| | |
|---|---|
| Anthesterion 1 | Feb. 14, B. C. 350. |
| Add 10 | 9 |
| Anthesterion 11 | Feb. 23 |

Date of the *Λήναια, Διονύσια ἐν Λίμναις*, or *Ἀνθεστήρια*, when Midias assaulted Demosthenes. The date of the expedition to Eubœa, and of the battle of Tamynæ, is hereby determined also[a]. Compare likewise *Κατὰ Ἀριστοκράτους*[b], which refers to the same expedition, and therefore must have been later than Anthesterion 11–13, B. C. 350, as indeed is implied by its own testimony[c]. The Oration *Πρὸς Βοιωτὸν* too[d] was later than Tamynæ, yet not much later.

The chronology indeed of these different orations is much perplexed[e]. The oration *πρὸς Βοιωτὸν ὑπὲρ προικὸς*[e], which Dionysius of Halicarnassus dated three years after that *πρὸς Βοιωτὸν ὑπὲρ ὀνόματος*[f], B. C. 347[g], was in reality prior to it; as appears from comparing them together[h]: and this latter having been later than the Anthesteria, B. C. 350, the former must have been earlier*. The oration contra Aristocratem, which refers to the expedition to Eubœa as a recent occurrence[i], must have been later than that. As to the oration *contra Midiam*, Demosthenes was 32 at the time when it is supposed to have been delivered[k]; and he was 18 complete, in the first month of Timocrates, Hecatombæon, B. C. 364: consequently 32 complete, in the first month of Apollodorus, Hecatombæon, B. C. 350, 31 years and six months old complete, at the middle of the year of Thessalus,

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* The state of the case with respect to these two orations seems to have been this; That the action *ὑπὲρ τοῦ ὀνόματος* had been entered, but not yet decided when the case *περὶ τῆς προικὸς* came on: cf. xl. 41–43: xxxix. 16, 17. 20: also xl. 13. 18. 20, 21. 41–43.

[a] xxi. 11–15: 19–31: 43, 44: 72. 84. 205–207. 222. 226. 2. cf. vol. i. 505.

[b] xxiii. 228.

[c] Cf. 127–130: 138: 144.

[d] xxxix. 16, 17. 20.

[e] Oratio xl.

[f] Oratio xxxix.

[g] Cf. Corsini F. Att. i. P. i. Diss. iii. 19. 137, 138. Ol. cviii. 1. B. C. 348–347.

[h] Cf. xl. 42, 43: xxxix.

[i] xxiii. 228.

[k] xxi. 196.

Anthesterion, B. C. 350. The occasion referred to in this oration[l] was clearly prior to Tamynæ, and therefore to Anthesterion, B. C. 350*.

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xlii. Period ii. 8, Cycle v. 8, B. C. 349–348.

Hecatombæon 1, June 29, 18 h. B. C. 349, *Cavus.* Ex. 3.
Anthesterion 1, Feb. 20, 18 h. B. C. 348, *Cavus.* Ex. 15.

| | | |
|---|---|---|
| Anthesterion 1 | Feb. 21 | B. C. 348. |
| Add 15 | 14 | |
| Anthesterion 16 | Mar. 7 | |

Date of the civil *πανσέληνον*, Anthesterion 16, the importance of which to the question of the order of the exemtile day in the cycle of Meton was shewn elsewhere[m].

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xliii. Period ii. 9, Cycle v. 9, B. C. 348–347.

Hecatombæon 1, July 17, 18 h. B. C. 348, *Plenus.*
Elaphebolion 1, Mar. 11, 18 h. B. C. 347, *Cavus.* Ex. 3.

In Demosthenes, *πρὸς Πανταίνετον*, the plaintiff is supposed to have set sail to the Pontus in this month, Ἐπὶ Θεοφίλου[n]: Πραχθέντων δὲ τούτων Ἐλαφηβολιῶνος μηνὸς ἐπὶ Θεοφίλου ἄρχοντος, ἐγὼ μὲν ἐκπλέων εἰς τὸν Πόντον εὐθὺς ᾠχόμην: March 12–April 10: which accounts for his setting sail in this month.

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* It should be remembered that this affair with Midias was compromised, (cf. Plutarch, Demosthenes, xii: Decem Oratt. viii. Demosth.: Phot. Cod. 265. 492. l. 37 ad dex.: Suidas, *Δημοσθένης*) for 3000 drachmæ. The extant oration however was composed, as if for delivery; and that too, soon after the *προβολή*, or first hearing of the charge in the temple of Dionysos, after the Pandia (xxi. 2. 11, 12. 270–272.) when Demosthenes gained a verdict against Midias: yet not before the end of the official year, B. C. 350, when he was elected senator, § 147. The actual publication of the speech after all might have been, as Dionysius dates it, Ἐπὶ Καλλιμάχου, B. C. 349–348: Ad Ammæum, 4. 726. 12.

[l] 204. 249.

[m] Vol. i. 503.

[n] xxxvii. 6. 8.

### xliv. Period ii. 9, Cycle v. 9, B. C. 348–347.

Hecatombæon 1, July 17, 18 h. B. C. 348, *Plenus*.
Thargelion 1, May 9, 18 h. B. C. 347, *Cavus*. Ex. 6.

| | | |
|---|---|---|
| Thargelion 1 | May 10 | B. C. 347. |
| Add 6 | 5 | |
| Thargelion 7 | May 15 | |

Date of the death of Plato, on his 82nd birthday, reckoned from Thargelion 7, B. C. 428 [o]. There was no sixth of Thargelion this year; consequently no birthday of Socrates, unless it was the seventh, the same day as Plato's. Moreover, if Plato died after a wedding feast, it must have been the night of May 14, or in the morning of May 15, this year.

### xlv. Period ii. 10, Cycle v. 10, B. C. 347–346.

i. Hecatombæon 1, July 7, 18 h. B. C. 347, *Cavus*. Ex. 9.
Boëdromion 1, Sept. 4, 18 h. ——— *Cavus*. Ex. 12.

| | | |
|---|---|---|
| Boëdromion 1 | Sept. 5 | B. B. 347. |
| Add 14 | 13 | |
| Boëdromion 15 | Sept. 18 | |

Date of the proceedings before the peace concluded with Philip, B. C. 346, coincident with the *σπονδαὶ μυστηριουτίδες* [p], sometime before Boëdromion 15, Sept. 18, and after Boëdromion 23, Sept. 26 *.

| | | | |
|---|---|---|---|
| ii. Hecatombæon 1, | July 7, 18 h. | B. C. 347, | *Cavus*. Ex. 9. |
| Elaphebolion 1, | Feb. 28, 18 h. | B. C. 346, | *Cavus*. Ex. 21. |
| Munychion 1, | Mar. 29, 18 h. | ——— | *Plenus*. |
| Skirrhophorion 1, | May 27, 18 h. | ——— | *Plenus*. |

Elaphebolion 8 this year, March 8, occurs in Æschines [q]: as the date too of the Æsculapia, and that of the *προάγων* before the Dionysia.

* According to the inscription, considered vol. i. page 42 *n*. these *σπονδαὶ* should have extended from Metageitnion 1, August 6, to Pyanepsion 10, October 13. Whether that was the case, in the present instance, we cannot say.

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[o] Cf. supra, pag. 33.

[p] Æschines, ii. 139–141. 145. Cf. iii. 62, 63.

[q] iii. 66, 67.

Elaphebolion 18 and 19, March 18 and 19, both occur also[r]; the 19th the date of the peace now concluded at Athens with the ambassadors of Philip.

Elaphebolion 24 and 25, March 23 and 24, also occur[s].

Munychion 3, April 1, occurs also[t]: and all these dates, in both orations, refer to the proceedings at Athens between the return of the first embassy, which settled the preliminaries of the peace, B. C. 346, and the mission of the second, Ἐπὶ τοὺς ὅρκους[u].

The 13th of Skirrhophorion, June 9, occurs in Demosthenes[v], as the date of the return of this second embassy: the 16th, June 12, as that of the ἐκκλησία, after their return[x]: five days after that in sequence, Skirrhophorion 16–20, June 12–16: then the 21st, 22nd, 23rd, of the same month, June 17–19: then the 27th, June 23, the date of the assembly which they were holding in the Piræus, on the fifth day after, when news arrived of the σπονδαὶ concluded with Philip by the Thessalians, on the ὀγδόῃ φθίνοντος of Skirrhophorion, Skirrhophorion 23, June 19[y], followed by the tidings of the occupation of Phocis, five or six days after, Skirrhophorion 27 or 28, June 23 or 24[z] *.

The ἕνη καὶ νέα of Hecatombæon occurs also[a], but only in the text of a ψήφισμα quoted in that part of the speech[a]: and these are often in error, as they stand at present. The context restricts it to the same occasion as all the preceding

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* Demosthenes, De Falsa (xix. 64. 89. 122.), implies that there were *four* months complete to this occupation, from some earlier date; which must have been that of the mission of the embassy ἐπὶ τοὺς ὅρκους, and after Elaphebolion 30, March 29. Their absence on that occasion is estimated at *three* months (xviii. 38. cf. xix. 64. 174): though there could have been only three months current, from Munychion 1, the earliest date of their departure, to Skirrhophorion 13, the date of their return.

[r] iii. 62 seqq.: 68. (cf. 64.) 69, 70, 71, 72. cf. ii. 56. 64. 66. 68. 70, 71. Demosthenes, xix. 12. 14. 16, 17. 64. 89. 157. 164.

[s] Æschines, ii. 88. 95, 96. 98. (89–94). cf. iii. 73, 74, which mentions only Elaphebolion 25, March 25.

[t] Æschines, ii. 97, 98. 103–124. 136. cf. Demosthenes, xix. 18, &c. 64, &c. Gaza, De Mensibus, iii. 282 A–C.

[u] Cf. Æschines, ii. 101, 102, 103–124. 146. 127 seqq. Demosthenes, xix. 64. 164–171. 183. 186.

[v] xix. 65. (cf. 19. 27.)

[x] 65. (21. 38)

[y] xix. 44–68. cf. 8 –87. 89. 137.

[z] Ibid. 132 134–137. Cf. Æschines, ii. 100 sqq. 146–151.

[a] Demosthenes, xviii. 36, 37. Cf. Corsini, F. A. i. P. i. Diss. iii. 13 sqq. p. 129–135.

dates between Elaphebolion 24 and Munychion 3: and the *ἔνη καὶ νέα* of Elaphebolion itself, March 29, seems to have been actually meant.

The 21st of Mæmacterion occurs in another *ψήφισμα* [b]; which is determined by the context to some time later than the occupation of Phocis, and the destruction of its towns (within 22 days after the occupation [c]), but before the arrival of the epistle from Philip, which announced these facts to the Athenians [d]. The occupation having been dated Skirrhophorion 27 or 28, June 23 or 24, the destruction could not have been later than Hecatombæon 20 (Period ii. 11, Cycle v. 11), July 16, nor the receipt of the news at Athens earlier than Hecatombæon 25 or 26, July 21 or 22. The above date consequently is probably to be corrected by Metageitnion 21, August 15 [e]. The date of the Heraclea [e] would be hereby determined, if the name of the month were known for certain, as later than the 21st of the month at least; and probably as the *δευτέρα φθίνοντος* [f].

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### xlvi. Period ii. 14, Cycle v. 14, B. C. 343–342.

Hecatombæon 1, July 22, 18 h. B. C. 343, *Cavus.* Ex. 21.
Gamelion 1, Jan. 15, 18 h. B. C. 342, *Cavus.* Ex. 30.

| | | |
|---|---|---|
| Gamelion 1 | January 16 | B. C. 342. |
| Add 24 | 24 | |
| Gamelion 25 | February 9 | |

A decree is quoted by Demosthenes [g], dated Gamelion 25, Ἐπὶ Χαιρώνδου Ἡγεμόνος ἄρχοντος,...φυλῆς πρυτανευούσης Λεοντίδος: which certainly does not belong to the year of Chærondas, B. C. 338–337. The reasons which it assigns are that Demosthenes *τινὰς τῶν ἐν Εὐβοίᾳ πόλεων ἠλευθερώκει* [h]—later than the attempts of Philip on the Peloponnese, B. C. 343, yet before the march into Thrace (followed ultimately by the siege of Byzantium) in the spring of B. C. 342 [i]. We may conclude therefore that the true date was probably Gamelion* 25, Ἐπὶ *Πυθοδότου*, Feb. 9, B. C. 342 [k] †.

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[b] Demosthenes, xviii. 44. 46, 47.

[c] xix. 97. 134–137.

[d] xviii. 48–50.

[e] Cf. xix. 97, and Æschines, iii. 80: ii. 146. Corsini, F. A. i. Pars i. Diss. ii. 15. p. 80.

[f] Cf. xix. 137, 138, compared with 64–68.

[g] xviii. 104, 105. cf. 281, 282.

[h] Cf. § 99.

[i] § 108.

xlvii. Period ii. 15, Cycle v. 15, B. C. 342–341.

Hecatombæon 1, July 11, 18 h. B. C. 342, *Plenus.*
Gamelion 1, Jan. 4, 18 h. B. C. 341, *Plenus.*

Gamelion 7, January 11, B. C. 341.

Date of the birth of Epicurus, according to Apollodorus [l], Ol. cix. 3, Sosigenes, B. C. 342, *Μηνὸς Γαμηλιῶνος ἑβδόμῃ, ἔτεσιν ὕστερον τῆς Πλάτωνος τελευτῆς ἑπτά*: that is, under the seventh archon from the archon of the year of the death of Plato, Theophilus. The tenth of Gamelion however, January 14, and the twentieth, January 24 [m], are also assigned as the dates of his birth.

xlviii. Period ii. 16, Cycle v. 16, B. C. 341–340.

Hecatombæon 1, June 29, 18 h. B. C. 341, *Plenus.*
Thargelion 1, May 20, 18 h. B. C. 340, *Plenus.*

Thargelion 24, June 13, B. C. 340.

Date of the victory of Timoleon on the Crimesus [n]: important, as we hope to see hereafter, to the illustration of the Corinthian calendar.

xlix. Period ii. 17, Cycle v. 17, B. C. 340–339.

Hecatombæon 1, July 18, 18 h. B. C. 340, *Plenus.*
Boëdromion 1, Sept. 15, 18 h. — — *Plenus.*

Boëdromion 16, October 1, B. C. 340.
— 30, — 15, — —

* That is, if Gamelion was really the name of the month; which is no more to be depended on in this instance than that of Hecatombæon, or that of Mæmacterion, just considered.

† xviii. 281. Demosthenes says the decree, relating to the crown decreed him for the events between the Theban alliance and Chæronea, B. C. 338. (cf. § 280.) was couched in the very same words as this of Aristonicus: and that must be decisive that this latter was older than B. C. 338 or 337. He calls the crown so decreed by Aristonicus (xviii. 103.) the second which he had received up to that time. The decree before Chæronea would make the third at least (xviii. 281). That of Ctesiphon, later than both, the fourth.

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[k] Cf. also 98–100, B. C. 342–339.

[l] Diogenes Laertius, x. cap. i. ix. 14. cf. Suidas, Ἐπίκουρος.

[m] Cf. Diogenes Laert. x. i. § x. 18: Pliny, H. N. xxxv. 2.

[n] Plutarch, Camillus, xix. Timoleon, xxv–xxix.: Symposiaca, v. Problema iii. cap. ii. Polyænus, v. xii. Timoleon i.: Cornelius Nepos, Timoleon 2: Diodorus Sic. xvi. 77–80.

These dates occur in Demosthenes[o], the former in one *ψήφισμα,* dated ἐπ' ἄρχοντος Πολυκλέους[p], the latter in another, dated ἐπὶ Νεοκλέους ἄρχοντος[q], but both in the same prytany, (Hippothoontis,) and both in the same month, Boëdromion. The context determines the time and occasion in each instance just before the Athenians and Philip went to war again, after the peace of B. C. 346, in the year of Theophrastus[r], B. C. 340.

In this case, Hippothoontis must have been the third Prytany; and the first three of the year must have entered as follows:

i. Hecatombæon 1, July 19.
ii. Metageitnion 6, Aug. 23.
iii. Boëdromion 12, Sept. 27. Ἱπποθοωντίς.

l. Period ii. 18, Cycle v. 18, B. C. 339–338.

i. Hecatombæon 1, July 7, 18 h. B. C. 339, *Plenus.*
Anthesterion 1, Jan. 30, 18 h. B. C. 338. *Plenus.*

Anthesterion 16, February 15, B.C. 338.

Date of the appointment of Philip to the headship of the Amphictyonic Council, and to the command in the Sacred War[s].

ii. Elaphebolion 1, March 1, 18 h. B. C. 338, *Cavus.* Ex. 12.
Munychion 1, March 30, 18 h. — — *Plenus.*

Elaphebolion 25, March 25, B. C. 338.
Munychion 30, April 29, — —

Dates, which occur in Demosthenes[t], in reference to the proceedings between the Athenians and Philip, after his appointment to the command of the Amphictyonic Council, and before the battle of Chæronea.

iii. Skirrhophorion 1, May 28, 18 h. B. C. 338, *Plenus.*

Skirrhophorion 15, June 12, B. C. 338.
— 16, June 13, — —

Skirrhophorion 15, on the evening of which day, Skirrhophorion 16 *ineunte,* June 12 after sunset, arrived the news of the

[o] Oratio, xviii.

[p] § 132.

[q] § 92, 93.

[r] Cf. xviii. 90–96. 177: Dionys. ad Ammæum, xi. 740. 8–12. 741. 1–742. 3: Diodor. xvi. 77.

[s] Demosthenes, xviii. 200. (cf. 193–199.) Referred to a wrong archon, Mnesithides, instead of Lysimachides. cf. Æschines, iii. 130.

[t] xviii. 209–212. cf. Diodor. xvi. 84.

occupation of Elatea by Philip[v]. The next day, Skirrhophorion 16, June 13, the assembly, arising out of this intelligence[x]. The occupation (three days at least before[y]) was probably Skirrhophorion 11, June 8, or Skirrhophorion 12, June 9.

### li. Period ii. 19, Cycle v. 19, B. C. 338–337.

i. Hecatombæon 1, June 27, 18 h. B. C. 338, *Cavus*. Ex. 18.
Metageitnion 1, July 26, 18 h. — — *Plenus*.

Metageitnion 7, August 2, B. C. 338.

Date of the battle of Chæronea in Greece[z], and of the death of Archidamus in Italy[a]. The date of the death of Isocrates (at 98 years of age), a few days later*, is hereby determined also[b].

ii. Thargelion 1, May 17, 18 h. B, C. 337, *Plenus*.

Thargelion 29, June 15.

Skirrhophorion 1, June 16, 18 h. B. C. 337, *Plenus*.

Skirrhophorion 2, June 18.
— 3, June 19.

All these dates occur in the decree recited by Æschines[c]; and if the year was truly that of Chærondas, in the last two months of his year.

### lii. Period ii. 20, Cycle vi. 1, B. C. 337–336.

i. Hecatombæon 1, July 16, 18 h. B. C. 337, *Plenus*.
Pyanepsion 1, Oct. 13, 18 h. — — *Plenus*.

Pyanepsion 22, November 4, B. C. 337.

Date of the decree of Ctesiphon, in honour of Demosthenes, out of which arose the Action de Corona[d]; ascribed to a wrong archon, Euthycles, instead of Phrynichus.

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* Not more than seven at the utmost, if, as Plutarch relates (Dec. Oratt. iv.), he died after an abstinence from food for four days—the first of them the day of the arrival of the news of the battle—which could not have been more than two or three days at the utmost later than Metag. 7.

[v] xviii. 218.

[x] 218, 219. 232.

[y] § 245. 247. 248.

[z] Plutarch, Camillus, xix.: Diodorus, xvi. 85, 86. 88: Lycurgus, i. 16 sqq.

[a] Plutarch, Camillus, xix.: Diodorus, xvi. 88. 63.

[b] Pausanias, i. xviii. 7: Plutarch, Decem Oratores, iv.: Photius, Bibl. Codex 260. 487. 39.

[c] iii. 27. Cf. Demosthenes, xviii 309: Gaza, iv. 283 C. Cf. Corsini Fasti Attici, i. Part i. 358. Diss. viii. 23. of the year of Chærondas.

ii. Elaphebolion 1, March 10, 18 h. B. C. 336, *Cavus*. Ex. 12.

Elaphebolion 6, March 16, B. C. 336.

Date of the entry of the action against Ctesiphon; as appears from Demosthenes[e], compared with Æschines[f].

### liii. Period ii. 22, Cycle vi. 3, B. C. 335-334.

i. Hecatombæon 1, June 25, 18 h. B. C. 335, *Plenus*.

Boëdromion 1, Aug. 23, 18 h. — — *Plenus*.

Boëdromion 15-23, Sept. 7-15, B. C. 335.

Date of the capture and destruction of Thebes by Alexander —sometime during the Mysteries, this year[g].

It is mentioned in Demosthenes[h] (obiter), that this year was one of scarcity at Athens; the medimnus having risen to sixteen drachmæ, three times its usual price: and that too before the destruction of Thebes. It is implied hereby that the annual supplies from the Pontus had not yet come in, when Thebes was taken; i. e. before Sept. 7 at the earliest. Nor did they usually come in before that time[i], and this year they might have been later than usual.

ii. Thargelion 1, May 16, 18 h. B. C. 334, *Cavus*. Ex. 21.

Thargelion 5, May 21, B. C. 334.

Date of the battle of the Granicus. Important to the illustration of the Macedonian calendar.

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[d] Demosth. xviii. 151, 152. cf. Æschines, iii. 237.

[e] xviii. 66. 68.

[f] iii. 220. (24-26.) Corsini dates it in the year of Lysimachides, B. C. 339-338. cf. F. A. i. Pars i. Diss. viii. 24. 362. Also Cicero, De Optimo genere oratorum, cap. 7, 19-22. B. C. 340 or 339.

[g] Plutarch, Camillus, xix, : Alexander, xiii. cf. Arrian, i. 10. Himerius, Eclogæ, ii. § 4. p. 44 : Ἡμεῖς γὰρ Θηβαίων πεσόντων τὴν τελετὴν ἀπεκλείσαμεν, ἵνα μὴ τοῖς Θηβαίων θρήνοις ἀντιβοῶμεν τὸν Ἴακχον. If this observation could be literally understood, it would imply that the Athenians received the news the day before the Ἴακχος—the date of which was Boëdromion 20—the sixth of the mystical feriæ. Consequently, the date of the destruction probably Boëdromion 17—the third of the mystical feriæ—Sept. 9 this year.

[h] Oratio xxxiv. 43, 44.

[i] See No. xxxiv.

### liv. Period ii. 26, Cycle vi. 7, B. C. 331–330.

Hecatombæon 1, July 10, 18 h. B. C. 331, *Plenus*.
Boëdromion 1, Sept. 7, 18 h. — — *Plenus*.

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Boëdromion | 1 | 0 | 0 | 0 | Sept. | 7 | 18 | 0 | 0 | B. C. 331. |
| Add | 13 | 2 | 55 | 34 | | 13 | 2 | 55 | 34 | |
| Boëdromion | 14 | 2 | 55 | 34 | Sept. | 20 | 20 | 55 | 34 | |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| By Pingré ⊙ eclipsed | Sept. 20 | 19 | 30 | 0 | Paris, B. C. 331. |
| | Sept. 20 | 20 | 55 | 34 | Athens. |

Date of the lunar eclipse before Arbela. This eclipse determines the date of Arbela; *eleven* days after[k], October 1, Boëdromion 24: though Plutarch, in one instance[l], dates it Boëdromion 26: a date which he must have obtained by assuming the eclipse on the πανσέληνον or fifteenth, and reckoning eleven days from the fifteenth to the battle. But the calendar was now more than one day in advance of the moon; and the full moons, instead of falling on the fifteenth, were falling on the fourteenth, and even on the thirteenth, of the month.

### lv. Period ii. 27, Cycle vi. 8, B. C. 330–329.

Hecatombæon 1, June 30, 18 h. B. C. 330, *Cavus*. Ex. 3.

Date of the Correction of Timocharis[m]: taken directly from the Metonic calendar and cycle of the time being. Consequently proving that it had undergone no correction from the epoch, Cycle i. 1, B. C. 432, down to *this* year, Cycle vi. 8, B. C. 330, at least.

### lvi. Period ii. 30, Cycle vi. 11, B. C. 327–326.

Hecatombæon 1, June 26, 18 h. B. C. 327, *Cavus*. Ex. 27.
Metageitnion 1, July 25, 18 — *Plenus*.

The oration of Demosthenes, entitled *Κατὰ Διονυσοδώρου βλαβῆς*[n], it appears to us, belongs to this year. For the proceedings therein related began one year complete, and part of another, before the institution of the suit[o]; and the contract between the parties was entered into in Metageitnion, the year before[p]. At that time Cleomenes was governor of Egypt[q]; and he was appointed by Alexander, B. C. 331[r]: and though he was in disgrace with him at the time of the death of Hephæstion, B. C. 325[t], he had not yet been removed from his office: and he must have been still acting in the same capacity when Ptolemy Lagi got possession of Egypt, B. C. 323, and soon after put him to death[v].

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[k] Plutarch, Alexander, xxxi.
[l] Camillus, xix.
[m] Supra, page 39. 41.
[n] lvi.
[o] § 3, 4. 19. 50.

The nature of the agreement concluded in Metageitnion the year before was this[x]: That the ship should sail from Athens to Egypt for corn, and come back with her cargo, touching at no other port by the way. And at the time of the ship's departure[y], the price of corn at Athens was moderately high; but after it had left, supplies came in from Sicily, which brought the market down: and that fact having been communicated to the other party in the contract, at Rhodes, when he was returning from Egypt, it led to the breach of agreement which gave occasion to the suit.

The date of this contract then was some time later than the appointment of Cleomenes[a], on the one hand, B. C. 331, and before the arrival of the corn ships from any quarter, on the other; yet in the month Metageitnion of some year. Metageitnion both B. C. 330, Period ii. 27, Cycle vi. 8, and B. C. 327, Period ii. 30, Cycle vi. 11, would have fallen early enough to answer the conditions of the case; in the former instance July 30, in the latter, July 26. The earlier date however is more likely to have been the true; and that would be this of July 26, B. C. 327—by which time corn-harvest would not have been over, even in Sicily, much less could ships have arrived at Athens with that year's produce[a]: and there would still have been time for a ship to sail to Egypt from Athens, and to return thence, before the usual period of the arrival of the supplies from the Pontus, the second week in September at the earliest.

The contract therefore was probably entered into in Metageitnion, July 26—August 25, B. C. 327. The suit would come on the next year, some time in the course of the six months appropriated to the hearing of nautical cases, from Boëdromion, Period ii. 31, Cycle vi. 12, Sept. 13, B. C. 326, to Munychion the same year, April 6, B. C. 325.

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[p] § 6.

[q] § 8, 9, 10.

[r] Arrian, iii. 5: Q. Curtius, iv. 8. 5: cf. the Œconomica of Aristotle, ii. 1352. 16 a—25 b. Lib. ii. 38.

[t] Arrian, vii. 23.

[v] Justin, xiii. 4, 11: Pausanias, i. vi. 3: cf. Photius, Bibl. Cod. 82. p. 64. l. 33. Dexippus: Cod. 92. p. 69. l. 34. Arriani τὰ μετὰ Ἀλέξανδρον.

[x] lvi. 6, 7: 11: 20.

[y] § 11–13.

[z] § 8–10.

[a] Cf. our Origines Kal. Italicæ, iii. 304 sqq.

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lvii. Period ii. 31, Cycle vi. 12, B. C. 326–325.

Hecatombæon 1, July 15, 18 h. B. C. 326, *Cavus.* Ex. 15.
Boëdromion 1, Sept. 12, 18 — *Cavus.* Ex. 18.

| | |
|---|---|
| Boëdromion 1 | Sept. 13 B. C. 326. |
| 19 | 18 |
| Boëdromion 20 | October 1 |

Date of the beginning of the voyage of Nearchus from the mouth of the Indus[b]. Important to the illustration of the Macedonian calendar. It is dated by Strabo[c] on the Πλειάδων ἑσπερία ἀνατολή: and that, by the calendar of Meton, was Zygon 5, October 1 also: a striking confirmation of the date in the Attic calendar, Boëdromion 20.

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lviii. Period ii. 34, Cycle vi. 15, B. C. 323–322.

Hecatombæon 1, July 11, 18 h., B. C. 323, *Plenus.*
Skirrhophorion 1, June 1, 18 B. C. 322, *Cavus.* Ex. 24.

Skirrhophorion 30, June 30, B. C. 322.

Date of the return of Demosthenes from exile; the day of the Θυσία Διὸς σωτῆρος[d], the last day of the official year at Athens.

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lix. Period ii. 35, Cycle vi. 16, B. C. 322–321.

i. Hecatombæon 1, June 30, 18 h., B. C. 322, *Plenus.*
Metageitnion 1, July 30, 18 — *Cavus.* Ex. 27.

Metageitnion 7, August 6, B. C. 322.

Date of the battle of Cranon[e].

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[b] Arrian, Indica, xxi.

[c] xv. ii. 307.

[d] Plutarch, Demosthenes, xxvii: Decem Oratt. viii. cf. Lysias, xxvi. 8. (No. xxiii. p. 80, 81. supra). Also Justin, xiii. 5: Scholia in Aristoph. ad Plutum, 1176. *τοῦ σωτῆρος*: *Ἐν ἄστει Δία σωτῆρα τιμῶσιν, ἔνθα καὶ σωτῆρος Διός ἐστιν ἱερόν· τὸν αὐτὸν δὲ ἔνιοι ἐλευθέριόν φασιν.* This altar was situated in the Piræus: cf. Plutarch, Decem Oratt. viii. Phot. Cod. 265. 494. 9 b.

[e] Plutarch, Camillus, xix: Demosthenes, xxviii: Phocion, xxvi: Demetrius, x. viii.

ii. Boëdromion 1, August 28, 18 h. B. C. 322, *Plenus.*

Boëdromion 20, September 17, B. C. 322.

Date of the introduction of a Macedonian garrison into Athens[f].

iii. Pyanepsion 1, Sept. 27, 18 h. B. C. 322, *Cavus.* Ex. 30.

Pyanepsion 9 October 6.
— 16 October 13.

The former of these was the date of the death of the orator Hyperides[g]; the latter was that of the death of Demosthenes, in the temple of Posidon in Calauria[h].

lx. Period ii. 39, Cycle vii. 1, B. C. 318–317.

Hecatombæon 1, July 17, 18 h. B. C. 318, *Plenus.*
Munychion 1, April 8, 18 B. C. 317, *Plenus.*

Munychion 19 April 27.

Death of Phocion[i], on the Πομπὴ Διός[k].

lxi. Period ii. 47, Cycle vii. 9, B. C. 310–309.

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Hecatombæon | 1 | 0 | 0 | 0 | July | 18 | 18 | 0 | 0 | B. C. 310, *Plenus.* |
| Add | 27 | 16 | 40 | 34 | | 27 | 16 | 40 | 34 | |
| Hecatombæon | 28 | 16 | 40 | 34 | Aug. | 15 | 10 | 40 | 34 | |

| | | h. | m. | s. | | |
|---|---|---|---|---|---|---|
| By Pingré, Sun eclipsed, | August 15 | 9 | 15 | 0 | Paris. | B. C. 310. |
| | August 15 | 10 | 40 | 34 | Athens. | |

Solar eclipse, when Agathocles was on his way from Sicily to Africa[l]. The calendar was now two days before the moon.

lxii. Period ii. 48, Cycle vii. 10, B. C. 309–308.

Hecatombæon 1, July 7, 18 h. B. C. 309, *Cavus,* Ex. 9.
Elaphebolion 1, Feb. 28, 18 B. C. 308, *Cavus,* Ex. 21.

Elaphebolion 11–13, March 11–13, B. C. 308.

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[f] Plutarch, Demosthenes, xxviii: Phocion, xxviii: Camillus, xix: cf. Diodor. Sic. xviii. 18: 48.

[g] Plutarch, Decem Oratt. ix. Photius, Bibl. Codex 266. p. 496. 22–38.

[h] Plutarch, Demosthenes, xxviii–xxx (cf. Dec. Oratt. viii): Diogenes Laertius, v. cap. i. vii. 9, 10: Vita, apud Reiskium, p. 151: Suidas, Δημοσθένης: Phot. Cod. 266–494, 495.

[i] Diodorus Sic. xviii. 58. 64–68: Cornelius Nepos, Phocion, 4.

[k] Plutarch, Phocion, xxxvii.

[l] Diodorus Sic. xx. 3, 4, 5: Justin, xxii. 6: Frontinus, i. xii. 9.

Dionysia, celebrated in the archonship of Demetrius Phalereus[m].

lxiii. Period ii. 49, Cycle vii. 11, B. C. 308–307.

Hecatombæon 1, June 26, 18 h. B. C. 308, *Cavus*. Ex. 27.
Thargelion 1, May 17, 18 h. B. C. 307, *Cavus*. Ex. 12.

Thargelion 26, June 11, B. C. 307.

Date of the liberation of Athens by Demetrius[n].

lxiv. Period ii. 50, Cycle vii. 12, B. C. 307–306.

Hecatombæon 1, July 15, 18 h. B. C. 307, *Cavus*. Ex. 15.
Elaphebolion 1, March 8, 18 h. B. C. 306, *Cavus*. Ex. 27.

Elaphebolion 11–13, March 19–21, B.C. 306.

Date of the first Dionysia, celebrated at Athens in honour of Demetrius, under the new name of Demetria; when the unexpected severity of the weather compelled the people to intermit the celebrity, and destroyed the harvest of the year ἐν χλόῃ[o]: a phenomenon the more remarkable, because of its happening so late in the year *.

* The exact date of the Dionysia ἐν ἄστει is not known from testimony: only that they were earlier every year than Elaphebolion 25[1], and later every year than the 8th[2]. No doubt they came close to the 8th, if that was the date of the Προάγων. We may conclude therefore with great probability, that their actual date was from the 11th to the 13th of this month, as that of the Lenæa, or *Διονύσια ἐν Λίμναις*, was from the 11th to the 13th of Anthesterion.

Dionysius of Halicarnassus, in his criticism on Dinarchus, has preserved a fragment of Philochorus relating to these two years, B. C. 307, and 306[3].

*Φιλόχορος δὲ ἐν ταῖς Ἀττικαῖς ἱστορίαις περί τε τῆς φυγῆς τῶν καταλυσάντων τὸν δῆμον, καὶ περὶ τῆς καθόδου πάλιν, οὕτως λέγει·*

*"Τοῦ γὰρ Ἀναξικράτους ἄρχοντος εὐθὺ μὲν ἡ τῶν Μεγαρέων πόλις ἑάλω· ὁ δὲ Δημήτριος, ὁ κατελθὼν ἐκ τῶν Μεγάρων, κατεσκευάζετο τὰ πρὸς τὴν Μουνυχίαν· καὶ τὰ τείχη κατασκάψας ἀπέδωκε τῷ δήμῳ. ὕστερον δὲ εἰσηγγέλθησαν πολλοὶ (τῶν) πολιτῶν, ἐν οἷς καὶ Δημήτριος ὁ Φαληρεύς. τῶν δὲ*

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[m] Athenæus, xii. 60. cf. iv. 64.

[n] Plutarch, Demetrius, viii. x.: Diodorus, xx. 45, 46: Athenæus, vi. 62, 63: Seneca, Opp. i. 389. 2: De Constantia, v. 3: Diogen. Laert. Lib. ii. xii. iv. 115: Plut. Dem. ix.

[o] Plutarch, Demetrius, xii. cf. Athenæus, xii. 50.: Clemens Alex. Protrepticon, iv. § 54. p. 47. 32.

[1] Thucydides, v. 20.

[2] Æschines, iii. 66, 67.

[3] 636. 7—637. 15.

### lxv. Period ii. 54, Cycle vii. 16, B. C. 303–302.

Hecatombæon 1, June 30, 18 h. B. C. 303, *Plenus.*
Munychion 1, April 22, 18 h. B. C. 302, *Cavus.* Ex. 9.

Initiation of Demetrius, both in the lesser and the greater Mysteries, at once, and in the month Munychion[p] *. Pro-

*εἰσαγγελθέντων τοὺς μὲν οὐχ ὑπομείναντας τὴν κρίσιν ἐνεθανάτωσαν τῇ ψήφῳ, τοὺς δ' ὑπακούσαντας ἀπέλυσαν."*

*Ταῦτα μὲν οὖν τῆς ὀγδόης. ἐν δὲ τῇ ἐνάτῃ φησί·*

*"Τοῦ δ' ἐνιαυτοῦ τουδὶ διελθόντος, ἑτέρου δ' εἰσιόντος, ἐν ἀκροπόλει σημεῖον ἐγένετο τοιοῦτο. κύων εἰς τὸν τῆς Πολιάδος νεὼν εἰσελθοῦσα, καὶ δῦσα εἰς τὸ Πανδρόσιον, ἐπὶ τὸν βωμὸν ἀναβᾶσα τοῦ Ἑρκίου Διὸς, τὸν ὑπὸ τῇ ἐλαίᾳ, κατέκειτο· πάτριον δ' ἔστι τοῖς Ἀθηναίοις κύνα μὴ ἀναβαίνειν εἰς ἀκρόπολιν[4]. περὶ τὸν αὐτὸν δὲ χρόνον καὶ ἐν τῷ ἱερῷ μεθ' ἡμέραν, ἡλίου τ' ἐξέχοντος, καὶ οὔσης αἰθρίας, ἀστὴρ ἐπί τινα χρόνον ἐγένετο ἐκφανής. ἡμεῖς δ' ἐρωτηθέντες ὑπέρ τε τοῦ σημείου, καὶ τοῦ φαντάσματος, εἰς ὃ φέρει, φυγάδων κάθοδον ἔφαμεν προσημαίνειν ἀμφότερα· καὶ ταύτην οὐκ ἐκ μεταβολῆς πραγμάτων ἐσομένην, ἀλλ' ἐν τῇ καθεστώσῃ πολιτείᾳ. καὶ τὴν κρίσιν ἐπιτελεσθῆναι συνέβη."*

The first day of Period ii. 51, Cycle vii. 13, Hecatombæon 1 was July 4 at 18 h., B. C. 306. The incident relating to the Acropolis happened in the evening of that day, the appearance of the star (probably a comet) at sunrise, the next morning, July 5. Both were dated by Philochorus on the same day; which is a clear proof of the Attic mode of reckoning the day from the evening before.

Philochorus' own age also is determined by these passages. He was alive and at Athens on the first of Hecatombæon, B.C. 306. Suidas tells us[5] he was put to death by Antigonus, on suspicion of a leaning to Ptolemy; that he was a young man when Eratosthenes was an old one †; and that his list of archons was brought down *ἕως Ἀντιόχου τοῦ τελευταίου, τοῦ προσαγορευθέντος Θεοῦ*. He must have lived to see the fulfilment of his own prediction, fifteen years after B. C. 307, i. e. B. C. 292[6].

* We date the initiation this year because no year is open to it, but one of these, B. C. 302 and B. C. 301; and the latter is excluded as

bably the month Munychion at this time too received the name of Δημητριὼν, and the ἔνη καὶ νέα of every month, which had a 30th day, received that of Δημητριάς[q] *.

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[p] Plutarch, Demetrius, xxvi. cf. xxv.: Diodorus, xx. 106–110. (cf. 102. 113. the year before B. C. 301), Athenæus : vi. 62, 63 : Polyænus, v. xvii : Heraclides, i.

† More properly, that he was an old man when Eratosthenes was a young one—*Ὡς ἐπιβαλεῖν πρεσβύτῃ νέον ὄντα Ἐρατοσθένην*, not *Ἐρατοσθένει*. If his list terminated with the reign of Antiochus Theus, about Ol. cxxix. 4, B. C. 261, he could not himself have been alive much longer. Eratosthenes, according to Mr. Clinton, was born B. C. 275, and died B. C. 194.

[4] Cf. Plutarch, Quæstiones Romanæ, cxi.

[5] In *Φιλόχορος*.

[6] Cf. Plutarch, Dec. Oratt., Dinarchus : Dionys. Hal. De Dinarcho, 2. 634. 7–10 : 3. Ibid. 12 : 4. 639. 3–5 : 9. 651. 2.

lxvi. Period ii. 74, Cycle viii. 17, B. C. 283–282.

Hecatombæon 1, July 19, 18 h. B. C. 283, *Plenus*.
Pyanepsion 1, Oct. 16, 18 h. — — *Cavus*. Ex. 18.

Pyanepsion 25, November 9, B. C. 283.

Date of the observation of Timocharis[r]; the importance of which to the proof of the point which we have undertaken to establish (viz. that the Metonic Calendar, after having been once received into use at Athens, continued in use there, without any correction, as low down as we can trace it) has been shewn[r].

lxvii. Period iii. 10, Cycle ix. 10, B. C. 271–270.

Hecatombæon 1, July 8, 18 h. B. C. 271, *Cavus*. Ex. 9.
Gamelion 1, Jan. 1, 18 h. B. C. 270, *Cavus*. Ex. 18.

Gamelion 7 or 10, January 8 or 11, B. C. 270.

Date of the death of Epicurus[s], at 72 years of age; i. e. 71

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being the date of the battle of Ipsus—before which, and before the autumn of B. C. 302, in the year of Nicocles (Diodor. xx. 106. 110. 111. 113.) Demetrius had already joined his father in Asia.

* Nor is it impossible that the change of the name of the Dionysia into Demetria, and the first celebration of the Dionysia under that name, might have taken place this year, B. C. 302, instead of B. C. 306 (No. lxiv.) The date of the Dionysia this year, assumed to have been Elaphebolion 11–13, would be April 2–4, and that would render a frost, such as Plutarch described, Demetrius xii., so much the more remarkable. Every thing considered, and Plut. Dem. xii. being compared with xxvi., we incline to the opinion that the true year of these last and most extreme of the adulatory decrees of the Athenians in honour of Demetrius was B. C. 302—the year before the battle of Ipsus. This year too, as well as B. C. 306, was a Panathenaic year, (the Panathenæa Majora,) the 67th from the epoch, B. C. 566; and among the other honours decreed him, one was that of having his portrait embroidered on the Sacred Vail, along with Zeus and Athena: which fixes the occasion to the Panathenæa Majora, either Hecatombæon 28, Cycle vii. 17, August 16, B. C. 302—or Hecatombæon 28, Cycle vii. 13, August 1, B. C. 306.

[q] Plut. Demetrius, xii. cf. Scholia in Pindar, ad Nemea, iii. 1.

[r] Supra, page 51.

[s] Clemens Alex. Strom. i. xvi. § 80. p. 56. l. 32: Diogenes Laertius, x. i. § viii. ix. 14, 15. § x. 18. Cicero, De Fato, 9, 19. cf. Plutarch, De Pythiæ Oraculis, viii.: Suidas, Ἐπίκουρος: Plutarch, Demetrius, xxxiv: Diog. Laert. x. i. § 1. 2.

complete from Gamelion 7, January 11. B.C. 341[v], to Gamelion 7, January 8, B.C. 270*.

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lxviii. Period iii. 23, Cycle x. 4, B.C. 258–257.

Hecatombæon 1, July 15, 18h. B.C. 258, *Cavus*. Ex. 24.
Mæmacterion 1, Nov. 10, 18h. — — *Cavus*. Ex. 30.

Mæmacterion 21, December 1.

It appears from the life of Zeno in Diogenes Laertius[x], that a decree was passed by the Athenians after his death, voting him a funeral monument in the Keramicus, and a golden crown: Ἐπ᾽ Ἀρρενίδου ἄρχοντος, ἐπὶ τῆς Ἀκαμαντίδος πέμπτης πρυτανείας Μαιμακτηριῶνος δεκάτῃ ὑστέρᾳ, τρίτῃ καὶ εἰκόστῃ τῆς πρυτανείας, ἐκκλησία κυρία καὶ τὰ λοιπά. The reading of the 23rd of the Prytany here is probably corrupt for the 21st (κα′ not κγ′), the number of the tribes at this time being twelve[y], and each serving for a month. Corsini dates the year of Arrhenides, Ol. cxxx. B. C. 260–259, and the death of Zeno, a little before[z]. On this principle the date of the decree must have been Mæmacterion 21, Period iii. 22, Cycle x. 3, B. C. 259—an intercalary year—in which it is doubtful whether the prytanies at this time could have begun and ended with the months. Diogenes himself gave us to understand that Zeno was 80 Ol. cxxx. B. C. 260[a], and died at 82. If so, not earlier than B. C. 259, and probably B. C. 258.

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* It is certainly doubtful whether Epicurus was born on the 7th or the 10th of the month. His own Will, from which Diogenes Laertius has given an extract[1], would imply that he was born on the *tenth*, and died on the twentieth. It appears from it at least that the *tenth* was kept as his birthday in his lifetime; and the twentieth was appointed to be kept as his *μνήμη* after his death.

*Ἐκ δὲ τῶν γινομένων προσόδων, τῶν δεδομένων ἀφ᾽ ἡμῶν Ἀμυνομάχῳ καὶ Τιμοκράτει, κατὰ τὸ δυνατὸν μεριζέσθωσαν μεθ᾽ Ἑρμάχου σκοπούμενοι, εἴς τε τὰ ἐναγίσματα τῷ τε πατρὶ καὶ τῇ μητρὶ, καὶ τοῖς ἀδελφοῖς, καὶ ἡμῖν εἰς τὴν εἰθισμένην ἄγεσθαι γενέθλιον ἡμέραν ἑκάστου ἔτους τῇ προτέρᾳ δεκάτῃ τοῦ Γαμηλιῶνος. ἔτι δὲ καὶ εἰς τὴν γινομένην σύνοδον ἑκάστου μηνὸς ταῖς εἰκάσι, τῶν συμφιλοσοφούντων ἡμῖν, εἰς τὴν ἡμῶν τε καὶ Μητροδώρου μνήμην κατατεταγμένην. συντελείτωσαν δὲ καὶ τὴν τῶν ἀδελφῶν ἡμέραν τοῦ Ποσειδεῶνος καθάπερ καὶ ἡμεῖς. συντελείτωσαν δὲ καὶ τὴν Πολυαίνου, τοῦ Μεταγειτνιῶνος*[2].

Part of this was translated by Cicero[3], who has the month Gamelion, but not the tenth also of the month. This injunction of their founder (that viz. of meeting on the 20th of the month in honour of him) became a characteristic of his sect; and gave them the name of *εἰκαδισταί*[4]. Diogenes Laertius[5] mentions a work of Menippus, Π*ρὸς* . . *γονὰς Ἐπικούρου καὶ τὰς θρησκευομένας ὑπ᾽ αὐτῶν εἰκάδας*—*Οὐδὲ ἅπερ ἔσκωπτε τὸν Κορνιάδην πράττοντα, οἷον ἐξ ἐφημερίδων ἀναλέγεσθαι . . ποίας εἰκάδας ἐδείπνησα πολυτελέστατα*[6]—Iidem palæstras athletarum imaginibus et ceromata sua exornant, et vultus Epicuri per cubicula gestant, ac circumferunt secum. natali ejus vicesima luna sacrificant, feriasque omni mense custodiunt quas icadas vocant, hi maxime qui se ne viventes quidem nosci volunt[7].

[v] No. xlvii. p. 97.

[x] vii. cap. 1. § ix. 10. cf. § vii. 6.

[1] x. i. § x. 18.

[2] Cf. Suidas, Ἐπίκουρος: ἥττων.

[3] De Finibus, ii. 30, 101.

[4] Cf. Athenæus, vii. 53: and our Origines Kal. Italicæ, iv. 250.

[5] Lib. vi. cap. viii. § vi. 101. Menippus.

[6] Plutarch, Non posse suaviter, &c. iv.

[7] Pliny, H. N. xxxv. 2. cf. Cicero, De Finibus, i. 20, 65: ii. 30, 96. 31, 101: v. 1, 3.

lxix. Period iii. 29, Cycle x. 10, B. C. 252–251.

Hecatombæon 1, July 8, 18 h. B. C. 252, *Cavus*. Ex. 9.
Anthesterion 1, Jan. 30, 18 h. B. C. 251, *Plenus*.

Anthesterion 7, Feb. 6, B. C. 251.

Date of the liberation of Sikyon[b]; important to the illustration of the Sikyonian calendar.

lxx. Period iii. 37, Cycle x. 18, B. C. 244–243.

Hecatombæon 1, July 8, 18 h. B. C. 244, *Plenus*.
Skirrhophorion 1, May 29, 18 h. B. C. 243, *Plenus*.

Skirrhophorion 13, 1 h. June 11, 18 h. B. C. 243.

June 11 was the date of the full moon of June, B. C. 243—as may be collected from the solar eclipse, June 26, 3 30 A. M. Paris, the same year. And this year was that of the liberation of Corinth, eight years after the liberation of Sikyon[c]—the year before the close of the first Punic War, by the victory of the Ægates Insulæ, the date of which was vi. Idus Martias, U. C. 513, B. C. 241. Consequently, B. C. 243—eight years complete from Feb. 6, B. C. 251.

Plutarch describes the time of the year by ἡ περὶ θέρος ἀκμάζον ὥρα; and the time of the month by the πανσέληνος[d]:

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[y] See vol. i. p. 84, 85.

[z] F. Attici, iv. 91. cf. i. P. i. 282. Diss. vi. 13. cf. Diog. Laert. vii. i. § viii. 6. 8. § xxv. 28. and Mr. Clinton, F. H. ii. 368. 1 : iii. 259. 3.

[a] Loc. cit. Also Cleanthes, vii. v. § vii. 176 : and Pausanias, ii. viii. 4 : vii. viii. 1 : Plut. Aratus, xxiii. : and No. lxx.

[b] Plutarch, Aratus, liii. cf. v.–ix.

[c] Polybius, ii. 43, 3, 4. 6.

[d] Aratus, xxi.

and the full moon is mentioned in the course of the account[e]. Both these notes of time might agree to June 11, Skirrhophorion 13: though they would also apply to the full moon of May—May 12 or 13 last before.

Aratus had been elected Prætor of the league *τὸ δεύτερον*[c], before this attempt was made: and he would enter by the Achæan calendar of this time, Cycle xviii. 4, on January 4, B. C. 243.

### lxxi. Period iii. 53, Cycle xi. 15, B. C. 228–227.

Hecatombæon 1, July 12, 18 h. B. C. 228, *Plenus.*
Boëdromion 1, Sept. 9, 18 h. — *Plenus.*

Boëdromion 15, Sept. 24.

The date of the first Illyrian expedition of the Romans[f] is determinable, by the help of the Ætolian calendar, to U. C. 525, Postumius et Fulvius, B. C. 229. For the services rendered to the Greeks on this occasion, Οἱ Ῥωμαῖοι, as Zonaras tells us[g], *διὰ ταῦτα παρὰ Κορινθίων ἐπηνέθησαν, καὶ τοῦ Ἰσθμικοῦ μετέσχον ἀγῶνος, καὶ στάδιον ἐν αὐτῷ ὁ Πλαῦτος ἐνίκησε. καὶ πρὸς Ἀθηναίους δὲ φιλίαν ἐπεποιήκεσαν, καὶ τῆς πολιτείας σφῶν τῶν τε μυστηρίων μετέσχον.* B. C. 228 was an Isthmian year, but not B. C. 229. The mysteries the same year would begin Sept. 24. And this is the first instance on record of the initiation of any Roman.

### lxxii. Period iii. 63, Cycle xii. 6, B. C. 218–217.

Hecatombæon 1, July 23, 18 h. B. C. 218, *Cavus.* Ex. 30.
Metageitnion 1, Aug. 21, 18 h. ——— *Plenus.*

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Metageitnion | 1 | 0 | 0 | 0 | August | 21 | 18 | 0 | 0 | B. C. 218. |
| Add | 11 | 0 | 55 | 34 | | 11 | 0 | 55 | 34 | |
| Metageitnion | 12 | 0 | 55 | 34 | Sept. | 1 | 18 | 55 | 34 | |

| | | | h. | m. | s. | |
|---|---|---|---|---|---|---|
| By Pingré ☽ eclipsed | Sept. | 1 | 17 | 30 | 0 | Paris, B. C. 218. |
| | Sept. | 1 | 18 | 55 | 34 | Athens. |

Date of the lunar eclipse; memorable for its effect on the Tectosagi, the mercenaries of Attalus, king of Pergamus, in the expedition then going on[h]. The calendar was now three days before the moon.

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[c] Aratus, xxii. cf. Polyænus, vi. v: Aratus, i.
[f] Zonaras, viii. xix. 402 B–403 A. [g] 403 A.

lxxiii. Period iv. 3, Cycle xiii. 3, B. C. 202–201.

Hecatombæon 1, June 27, 18 h. B. C. 202, *Plenus.*
Boëdromion 1, Aug. 25, 18 h. ——— *Plenus.*

Boëdromion 15, Sept. 9.

Date of the Mysteries, when the profanation occurred, which gave occasion to the war between the Athenians and Philip; and ultimately between the Romans and Philip[i].

lxxiv. Period iv. 5, Cycle xiii. 5, B. C. 200–199.

Hecatombæon 1, July 4, 18 h. B. C. 200, *Plenus.*
Boëdromion 1, Sept. 1, 18 h. ——— *Plenus.*

Boëdromion 15, September 16, B. C. 200.

Date of the mysteries, at which Attalus, king of Pergamus, was initiated at the end of the first year of the war of the Romans and Philip; but before the autumnal equinox: Jam autumnale æquinoctium instabat, et est sinus Euboïcus quem Cœla vocant suspectus nautis. itaque ante hiemales motus evadere inde cupientes Piræum, unde profecti ad bellum erant, repetunt ... regem (Attalum *scil.*) spatium initiorum Cereris, ut sacris interesset, tenuit. secundum initia et ipse in Asiam se recepit ... hæc ea æstate terra marique adversus Philippum sociosque ejus ... gesta[k].

The mysteries therefore this year fell before the autumnal equinox; and so they did, according to our calendar, by a fortnight. And yet to judge from the context of Livy[l] these mysteries might have been those of B. C. 199 the next year; when Boëdromion 1 fell September 21, and Boëdromion 15 October 5: and the last day of the mysteries, October 13, much later than the autumnal equinox.

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[h] Polybius, v. 78: 77, 78. cf. 72, and 111, 8, 9, B. C. 216. The spring of B. C. 218 begins v. i. 3: cf. 29. 7: 68. 1. 71, 72–76. See our Fasti Cath. ii. 433.

[i] Livy, xxxi. 5–14. Cf. our Origines Kal. Italicæ, iii. 77.

[k] Livy, xxxi. 47 (33. 44–47). Cf. our Origines Kal. Italicæ, iii. 81, 82.

[l] See our Origines Kal. Italicæ, iii. 72–84, on the chronology of the war with Philip in general.

lxxv. Period iv. 76, Cycle xvi. 19, B. C. 129–128.

Hecatombæon 1, June 29, 18 h. B. C. 129, *Cavus*. Ex. 18.
Mæmacterion 1, Oct. 25, 18 h. ——— *Cavus*. Ex. 24.

| | | h. | m. | s. | | | h. | m. | s. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Mæmacterion | 1 | 0 | 0 | 0 | October | 25 | 18 | 0 | 0 | B. C. 129. |
| Add | 10 | 8 | 55 | 34 | | 10 | 8 | 55 | 34 | |
| Mæmacterion | 11 | 8 | 55 | 34 | Nov. | 5 | 2 | 55 | 34 | |

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| By Pingré ⊙ eclipsed | Nov. 5 | 1 | 30 | 0 | Paris. |
| | Nov. 5 | 2 | 55 | 34 | Athens. |

Date of the lunar eclipse, at the death of Carneades[m]. Important, to the calendar of Cyrene. The Metonic calendar was now four days complete in advance of the moon.

lxxvi. Period v. 21, Cycle xviii. 2, B. C. 108–107.

Hecatombæon 1, July 9, 18 h. B. C. 108, *Cavus*. Ex. 18.
Boëdromion 1, Sept. 6, 18 h. ——— *Cavus*. Ex. 21.

Boëdromion 15–23, Sept. 20–28, B. C. 108.

Date of the mysteries, for which Crassus, returning from Asia *ex quæstura*, was two days too late. Paullum sitiens istarum artium de quibus loquor gustavi, quæstor in Asia cum essem, æqualem fere meum ex Academia rhetorem nactus Metrodorum illum, de cujus memoria (powers of memory) commemoravit Antonius[n]; et inde decedens Athenis: ubi ego diutius essem moratus nisi Atheniensibus quod mysteria non referrent, ad quæ biduo serius veneram, succensuissem[o]. He arrived then Sept. 29 or 30. Had he come the year before, the same day, they would not then even have been begun; the first of the mystical feriæ, B. C. 109, having been Oct. 1 *.

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* We infer that B. C. 108 must have been the year in question, from other testimonies of Cicero. There is much in the Brutus[1] which relates to the history of Crassus.

He was 34 years older than Cicero[2]; having been born, Coss. Q. Cæpione C. Lælio, U. C. 614, B. C. 140, as Cicero was, Coss. C. Serrano

[m] Diogenes Laertius, iv. Cap. ix. § vii. 64, 65.

[n] De Oratore, ii. 88, 360.

[o] Ibid. iii. 20, 75.

[1] Cap. 43, 158–44, 164.

[2] Cf. 161.

lxxvii. Period v. 45, Cycle xix. 7, B. C. 84–83.

Hecatombæon 1, July 13, 18 h. B. C. 84, *Plenus.*
Boëdromion 1, Sept. 10, 18 h. ——— *Plenus.*

Boëdromion 15–23, Sept. 25–Oct. 3.

Date of the mysteries at which Sulla was initiated [p]. He had previously arrived from Ephesus, on the third day: and the mysteries this year having fallen later than the autumnal equinox, that explains his staying at Athens to winter. The Dionysia are mentioned [q], while he was still there; and those would be in course Elaphebolion 11–13, March 17–19, B. C. 83. Pomponius Atticus also was at Athens while Sulla was there on this occasion [r].

lxxviii. Period v. 50, Cycle xix. 12, B. C. 79–78.

Hecatombæon 1, July 18, 18 h. B. C. 79, *Cavus.* Ex. 15.
Boëdromion 1, Sept. 15, 18 h. ——— *Cavus.* Ex. 18.

Boëdromion 15–23, Sept. 29–Oct. 7.

Date of the mysteries at which Cicero was initiated †.

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Q. Cæpione, U. C. 648, B. C. 107–106 [3]: His enim consulibus (Serrano et Cæpione) eam (Serviliam) legem suasit quibus nati sumus [4]. He tells us [4] also that Scævola was the colleague of Crassus omnibus aliis in magistratibus, except that Crassus was tribunus plebis a year before him: Eoque in rostris sedente suasit Serviliam legem Crassus. Consequently Crassus was tribunus plebis B. C. 107: and Scævola, B. C. 106.

Now the legal age of the quæstorship was 30 complete [5]; Crassus consequently would be quæstor B. C. 110, and returning ex quæstura B. C. 108.

There is another allusion to some occasion when Crassus was present at Athens [6]. It appears too that on these occasions many of the hearers of Carneades were still alive, and at Athens, and known to Crassus [7]; which could scarcely have failed to be the case only 20 or 21 years after his death.

† That Cicero was sometime or other initiated, may be collected from

[p] Plutarch, Sulla, xxvi, xxvii: Suidas, Σύλλας. Cf. our Origines Kal. Italicæ, iii. 287.

[q] Plutarch, Sulla, xxvi.

[r] Cornelius Nepos, Atticus, iv. 1, 2.

[3] Cf. our Origines Kal. Ital. iii. 262–265.

[4] § 43, 161.

[5] See our Origines Kal. Ital. iii. 264, 265 *n.*: also Middleton's Life of Cicero, i. 60.

[6] De Oratore, i. 11, 45.

[7] Ibid. iii. 18, 67, 68.

lxxix. Period vi. 11, Cycle xxi. 11, B. C. 42–41.

Hecatombæon 1, June 30, 18 h. B. C. 42, *Cavus.* Ex. 27.
Boëdromion 1, Aug. 28, 18 h. ——— *Cavus.* Ex. 30.

Boëdromion 15–23, Sept. 11–19, B. C. 42.

various allusions which occur in his works: Quid ergo aget Iacchus, Eumolpidæque vestri, et augusta illa mysteria, siquidem sacra nocturna tollimus? *Atticus:* Excipis credo illa, quibus ipsi initiati sumus [1]—Initiaque ut appellantur ita revera principia vitæ cognovimus: neque solum cum lætitia vivendi rationem accepimus, sed etiam cum spe meliore moriendi [2]—Quære quorum demonstrantur sepulcra in Græcia: reminiscere quoniam es initiatus quæ traduntur mysteriis [3].

As to the time when; he tells himself in his Brutus [4], Itaque cum essem biennium versatus in causis, et jam in foro celebratum meum nomen esset, Roma sum profectus. cum venissem Athenas, sex menses cum Antiocho ... fui [5]. And no doubt it was then that he was initiated.

He adds [6], Ita recepi me biennio post: and that, it appears, B. C. 76 [7]. Unum igitur annum, cum rediissemus ex Asia, causas nobiles egimus, cum quæsturam nos, consulatum Cotta, ædilitatem peteret Hortensius. Now Cotta was consul B. C. 75. Therefore a candidate for the consulship B. C. 76: which must consequently have been the year of Cicero's return from Asia—two years after he left Athens—two years and six months after his arrival there. His arrival therefore must be dated sometime before the mysteries, B. C. 79—his departure six months after, B. C. 78. This is confirmed by Plutarch, who tells us [8] that he was at Athens at the time of the death of Sulla, which happened early B. C. 78 [9]. Also by his own statement [10], that he left Rome, in the first instance, two years after his first *causa publica.*

His first cause was that Pro P. Quinctio, delivered B. C. 81 [11]. His first causa publica was the oration Pro Sex. Roscio delivered the next year, L. Sulla ii. et Q. Metello Coss. U. C. 674, B. C. 80 [12].

There are other allusions to his presence at Athens, and his having heard Antiochus on this occasion [13]. Atticus and Cicero's brother Quintus, and their cousin Lucius, were at Athens also at the same time [14]. He was some time likewise at Sparta; and witnessed the ceremony of the *μαστίγωσις* there, at or on the altar of *Ἄρτεμις Ὀρθωσία* [15]: most probably during the six months spent in Greece.

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[1] De Legibus, ii. 14, 35.

[2] Ibid.

[3] Tusculanæ, i. 13, 29. Cf. De Natura Deor. ii. 24, 62.

[4] 91, 314.

[5] Ibid. 315.

[6] Ibid. 316.

[7] Ibid. 92, 318.

[8] Cicero, iii. iv.

[9] Sulla, xxxvi, xxxvii, xxxviii. Cf. our Origines Kal. Ital. ii. 33 sqq.: iii. 282 *n.*: 297, 298.

[10] Brutus, 91, 314.

[11] Cf. our Origines Kal. Ital. iii. 288 sqq.

[12] Cf. the argument: also Brutus, 90, 312: Plutarch, Cicero, iii. iv.

[13] De Finibus, v. 1, 1–5. 8. Tusculanæ, iii. 17, 38.

[14] De Finibus, v. 1, 1–8.

[15] Tusculanæ, ii. 14, 34: v. 27, 177.

From the life of Antony, in Plutarch[s], it may be inferred that he too must have been initiated some time or other, and the context would imply in the year of Philippi; after which battle he is supposed to have proceeded first of all to Athens, and thence to Asia. And this (though contrary to the inference derivable also from other accounts of his proceedings after the same battle, which make him go at once to Asia[t]) would be disproved by the testimony of the Metonic calendar the same year; according to which the mysteries must have been celebrated *before*, not *after*, the battle of Philippi: as may be shewn from the circumstances of that battle, and the nearest approximation to its actual date which can be made.

i. The battle of Philippi was certainly over before the birthday of Tiberius, the same year, xvi. Kal. Dec. November 16[v]. ii. There were two battles on this occasion (the second twenty days later than the first[x]), in the first of which Cassius lost his life, and in the second, Brutus. iii. Before the first battle, when Brutus and Cassius were on their march to Philippi, the dryness of the weather is particularly noticed[y]; and many days even after that (certainly more than eleven[z]) on the day of the battle itself, the same thing is again alluded to[a]. This is a criterion of the summer season, of a time before the autumnal equinox at least. iv. Among other prodigies, before the first battle, one was a swarm of bees in the camp of Cassius[b]; and the same thing is said to have happened on the morning of the second[c], even 20 days later[d]. v. Yet only the day before the first battle, the winter is spoken of as at hand[e], and directly after it, the autumnal rains and frost are alluded to[f]: Ὄμβρων φθινοπωρινῶν ἐπιγενομένων, πηλοῦ κατεπίμπλαντο τὰς σκηνὰς, καὶ ὕδατος, παραχρῆμα πηγνυμένου διὰ ψῦχος. vi. Bad weather is alluded to some time before the day of the first battle, when Murcus, the admiral of the fleet of Brutus and Cassius, intercepted and destroyed the reinforcements coming to Cæsar and Antony under Domitius Calvinus[g]; and the head of Brutus (sent to Rome after the second battle) was lost in a storm between Dyrrhachium and Italy[h].

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[s] xxiii.

[t] Cf. Dio, xlviii. 1, 2. 4. 24: Appian, De Bell. Civ. v. 1–4: Livy, Epitome, cxxv: Joseph. Ant. Jud. xiv. xii. 2, 3, 4: Zonaras, v. 9. 228 D: also our Fasti Catholici, ii. 425 note.

[v] Suetonius, Tiberius, v. 2: xxvi. 3. 5. cf. Dio, lvii. 2. 8. 18: lviii. 28. Kal. Antiatinum, apud Foggini, xvi. Kal. Dec. cf. Vell. Pat. ii. 75. 94: Tacitus, Ann. vi. 50. 40.

[x] Plutarch, Brutus, xlvii. cf. Appian. De Bell. Civ. iv. 117. 119. 120. 121. 122. (cf. 115.) 123–125.

[y] Appian, De B. Civ. iv. 104.

[z] Ibid. 108, 109, 110.

[a] Ibid. 112, 113. cf. Dio, xlvii. 45: Zonaras, x. 19. 506 C: Vell. Pat. ii. 70: Florus, iv. 7, 13.

[b] Dio, xlvii. 40: Zonaras, x. 19. 506 A: Appian, iv. 134: Obsequens, cxxx: Plutarch, Brutus, xxxix.

[c] Plutarch, Brutus, xlviii.

[d] Ibid. xlvii.

[e] Ibid. xxxix. cf. Appian, iv. 115–121, 122: v. 8: Dio, xlvii. 47.

[f] Ibid. xlvii: Appian, iv. 122.

If then some of the circumstances, with respect to these two battles, would seem to fix the time of both to the end of the summer season at the latest, others would just as probably determine it to the beginning of winter, understood in the sense in which the ancients generally understood it; and the best mode of reconciling both together is, to conclude that their actual time was between the two: that of the first, *before* the autumnal equinox, that of the second, *after* it. The circumstances of the death of Cassius, on the evening of the first battle, appear to imply a dark night[i]; and those of the death of Brutus, on the night of the second[k], a moonlight one: from which distinction we may conjecture that the first was fought in September, about the time of the new moon, September 20, and the second (twenty days later), a few days after the full, October 5.

Under these circumstances, it must have been impossible for Antony to have been present at Athens, at the mysteries, the same year, Sept. 11–19. The occasion therefore, referred to by Plutarch, as that of his initiation, was some time when he was at Athens after this; as he was, in fact, repeatedly between B. C. 42 and B. C. 31.

lxxx. Period vi. 13, Cycle xxi. 13, B. C. 40—39.

Hecatombæon 1, July 7, 18 h. B. C. 40, *Plenus.*
Elaphebolion 1, March 30, 18 h. B. C. 39, *Cavus.* Ex. 15.

Elaphebolion 11–13, April 10–12, B. C. 39.

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[g] Appian. iv. 82. 115, 116. cf. 122: Dio, xlvii. 47: Plutarch, Brutus, xlvii. before the second battle.

[h] Dio, xlvii. 49. cf. Suetonius, Augustus, xiii. 2.

[i] Vide Valerius Max. ix. ix. De Errore, 2. cf. Plutarch, Brutus, xliv. xlv: Appian, iv. 113, 114: Dio, xlvii. 46. (42–45.) Velleius Paterculus, ii. 70.

[k] Appian. iv. 130, 131: Plut. Brutus, xlix. lii: Dio, xlvii. 48, 49: Zonaras, x. 20. 508 B.

Date of the Dionysia, celebrated by Antony, after the peace of Brundisium, concluded B. C. 40, with Sextus Pompeius[l].

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lxxxi. Period vi. 22, Cycle xxii. 3, B. C. 31—30.

Hecatombæon 1, June 29, 18 h. B. C. 31, *Plenus.*
Boëdromion 1, Aug. 27, 18 h. —— *Plenus.*

Boëdromion 15–23, September 11–19, B. C. 31.

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Date of the mysteries, in the year of Actium. Now according to Dio[m], Augustus was initiated at these mysteries, after the battle. Suetonius too recognises the fact of his having been initiated some time or other[n]; and we may infer from his account[o] that it must have been on *this* occasion, when he was passing from Actium to Samos: where he proposed to have wintered, had he not been recalled by the mutiny of the troops at Brundisium[p]. The fact of his presence at Athens, soon after the battle, is confirmed by the story in Valerius Maximus[q], and in the Scholia on Horace[r], of the fate of Cassius of Parma[s].

The date of Actium, in the Roman calendar, was September 2[t], at that time September 1, Julian[v]. There was an interval of seven days[x], after the battle, before the land forces of Antony submitted; and Augustus, no doubt, would stay until they had done so: consequently, till September 7.

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[l] Dio, xlviii. 39. (cf. 34.) 43–46: Zonaras, x. 23. 512 D–513 A. 22. 511 C–512 D: Athenæus, iv. 29: Seneca Rhetor, Suasoriæ, i. p. 6, 7. Appian, v. 52: Anthony came to Athens, B.C. 40, before he went to Brundisium; and after the peace he returned thither again: v. 69. 74. 75. cf. Joseph. Ant. Jud. xiv. xv. 5: Plutarch, Antonius, xxxiii. The winter (B. C. 40–39.) was spent by him there, with Octavia, whom he had recently married: v. 64. 66. 75, 76: and he despatched Ventidius to Asia thence, B. C. 39: Jos. Ant. Jud. xiv. xiv. 6: Bell. i. xv. 2: Zonaras, x. 23. 512 D–513 A. The spring (B. C. 39.) is mentioned while he was still at Athens: Appian, v. 76. (89. cf. 78, 79.) He left it, in short, only B. C. 38: App. v. 93. cf. Dio, xlviii. 43–46. And he had a daughter by Octavia while he was still there: Plut. Antonius, xxxiv. Cf. v. 95. (the renewal of the πενταετία, B. C. 38. see iv. 2. B.C. 43.) also our Origines Kal. Italicæ, ii. 126. vi: iii. 276: and our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, vol. i. 266 sqq.

[m] li. 4.

[n] Vita, xciii 2

[o] Cap. xvii. 5, 6.

[p] Cf. Dio, li. 4, 5: Zonaras, x. 30. 527 A: Sueton. Aug. xvii. 6, 7.

[q] i. vii. De Somniis, 7.

[r] Ad Epp. ii. iv. 3.

[s] Cf. Appian, B. C. v. 2. 139: Pliny, xxxi. 8. p. 566: Vell. Pater. ii. 87: Suetonius, Aug. iv. 5.

[t] Kalendaria apud Foggini, Amiternine and Capranic. Dio, li. 1: Zonaras, x. 30. 526 C: cf. v. 15. 239 A: also Orosius, vi. 19. 437: Plutarch, Antonius, lxv. lxviii.

[v] Vide our Origines Kal. Italicæ ad Ann. U. C. 723. tom. iv. lxxxiii.

[x] Plutarch, Antonius, lxviii: Zonaras, x. 30. 526 C. cf. Dio, li. 1.

But, even after that, it was possible for him to arrive at Athens, from Actium, by sea, before the beginning of the mysteries, September 11; for the passage did not require more than three days and three nights' sail, at the rate of 130 miles in a day and night.

These seven days however, between the date of the battle, September 1, and the departure from Actium, September 7 or 8, would have made a very great difference to this question, Whether it was possible for Augustus to have been still at Actium, as late as September 7, yet at Athens, as early as the first of the mystical feriæ, the same year, if the Metonic calendar had not by this time gained five days on the moon. In a calendar true to the moon, the 15th Boëdromion at this time would have fallen on September 6, the day before the first on which Augustus could have left Actium; nor could he possibly, in that case, have arrived in time for the mysteries, nor consequently have been initiated on this occasion, unless they were renewed on purpose: as there is not the slightest reason to believe they were.

lxxxii. Period vi. 29, Cycle xxii. 10, B. C. 24—23.

Hecatombæon 1, July 11, 18h. B. C. 24, *Cavus.* Ex. 9.

Dionysius of Halicarnassus his date of the capture of Troy, Thargelion 23, B. C. 1183, was taken from the vulgar Metonic calendar for the year before this, by reckoning back 61 cycles of 19 years; as we hope to shew on a future opportunity. It proves consequently that for 408 years after the epoch, Hecatombæon 1, B. C. 432, that calendar had undergone no change, except what had been simply the effect of time.

lxxxiii. Period vi. 34, Cycle xxii. 15, B. C. 19—18.

| | | | | |
|---|---|---|---|---|
| Hecatombæon | 1, July 15, 18h. | B. C. 19, | *Plenus.* |
| Boëdromion | 1, Sept. 12, 18h. | —— | *Plenus.* |

Boedromion 15, September 27.

It is recorded of this year, that the Gymnosophist, whom Dio calls Zarmarus[y], and Strabo (after Nicolaus of Damascus) Zarmanochegas[z], (one of the embassy from India to

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[y] liv. 9. cf. 10.

[z] xv. i. 303, 304.

Augustus, which arrived while he was wintering at Samos, B. C. 20–19[a],) burnt himself at Athens, as Augustus was returning to Rome; having been previously initiated in the mysteries: Καίπερ οὐκ ἐν τῷ καθήκοντι χρόνῳ. Augustus' return on this occasion is fixed to October 12, B. C. 19, by the date of the Ara Fortunæ reduci[b]. The first of the mystical feriæ this year was September 27, three days after the Julian date of the autumnal equinox, before which Augustus had no doubt left Athens. The initiation of Zarmarus therefore, at an extraordinary time, must have been *before*, not *after*, the usual time; and the reason might have been that Augustus could not wait for the mysteries, this year, because they fell later than the equinox.

### lxxxiv. Period vii. 29, Cycle xxvi. 10, A. D. 53.

Hecatombæon 1, July 12, 18 h. A. D. 53, *Cavus.* Ex. 9.

Mr. Ideler[c] has an observation in reference to this year: "Some change was certainly made in the Callippic Period; for from an inscription, belonging to Olymp. ccviii. A. D. 53, this year, which ought to have been intercalary, it appears was not."

The inscription here alluded to is No. 267 of the Corpus Inscriptionum. It records the names and order of the Γυμνασιάρχαι, in the year of Dionysodorus; and these being only twelve in number, (one for each month,) it seems a necessary inference from that fact, that the year of Dionysodorus, in the order of the cycle, was common.

Dionysodorus, according to Phlegon, (De Mirabilibus 7,) was archon U. C. 806, A. D. 53; and though this year by the Callippic Cycle, Period vi. 3, Cycle xxi. 3, would certainly have been intercalary, by the vulgar Metonic calendar, Period vii. 29, Cycle xxvi. 10, it would be common. This distinction explains the anomaly adverted to by Mr. Ideler, as well as the mistake into which both he and Mr. Boeckh appear to have fallen; viz. that of supposing this year in the regular course of things to have derived its character from the Callippic, and not from the vulgar Metonic, cycle of the time being.

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[a] Cf. Dio, liv. 9, 7: Florus, iv. 12, 62. (who tells us they had been four years on the road): Strabo, xv. 1. 250 a: Suetonius, Augustus, xxi. 7: Eutropius, vii. 5: Aurelius Victor, in Augusto.

[b] Kalendarium Amiterninum, apud Foggini. cf. our Origines Kal. Italicæ, ii. 110. xxxviii. and iv. 50.

[c] Chronology.

### lxxxv. Period vii. 36. Cycle xxvi. 17. A. D. 60–61.

Hecatombæon 1, July 23, 18 h. A. D. 60, *Plenus.*
Boëdromion 1, Sept. 20, 18 h. — — *Plenus.*

Boëdromion 15–23, October 5–13.

We are enabled to illustrate the calendar date of the Mysteries this year, by the testimony of Philostratus' Life of Apollonius.

It appears that when this philosopher visited Greece for the first time, he arrived at Athens on the last but one of the mystical feriæ, called Ἐπιδαύρια, Boëdromion 22. Now it is said that he set out on this visit in the autumn; *Καὶ γὰρ μετόπωρον ἤδη ἐτύγχανε*[d], when he had got as far as Ilium: and it was the same season of the year, when he was sailing past Eubœa: Ἡ *μὲν θάλαττα ὑπτία, καὶ τῆς ὥρας κρείττων, ἐφαίνετο*[e]. His arrival at the Piræus is thus described[f]: Ἐς *δὲ τὸν Πειραιᾶ ἐσπλεύσας περὶ μυστηρίων ὥραν, ὅτε Ἀθηναῖοι πολυανθρωπότατα Ἑλλήνων πράττουσιν, ἀνῄει ξυντείνας ἀπὸ τῆς νεὼς ἐς τὸ ἄστυ. προϊὼν δὲ πολλοῖς τῶν φιλοσοφούντων ἐνετύγχανε Φαληράδε κατιοῦσιν· ὧν οἱ μὲν γυμνοὶ ἐθέροντο, καὶ γὰρ τὸ μετόπωρον εὐήλιον τοῖς Ἀθηναίοις**...*ἦν μὲν δὴ Ἐπιδαυρίων ἡ ἡμέρα ...ἀμελήσαντες δὲ οἱ πολλοὶ τοῦ μυεῖσθαι περὶ τὸν Ἀπολλώνιον εἶχον...ὁ δὲ...ἐκέλευσε.. πρὸς τοῖς ἱεροῖς τότε γίγνεσθαι, καὶ γὰρ αὐτὸς μυεῖσθαι.*

Yet he was not initiated on this occasion. The Hierophant at first took him for an impostor; and when he discovered his mistake, and would have performed his part, Apollonius declined his services: Ὁ δὲ...*μυήσομαι ἔφη αὖθις·*

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* In illustration of this allusion to the warmth of the weather, at the mysteries, compare v. ii. 212 D–213 A; when Apollonius was in Spain, in the neighbourhood of Gadara, or Gades: the climate of which at the time is described as resembling that of Attica, at the mystical season: *Γεωργίας τε ξυμπάσης μεστὴν . . . καὶ ὡρῶν, οἷαι τῆς Ἀττικῆς αἱ μετοπωριναί τε καὶ μυστηριωτίδες.*

[d] iv. iii. 168 A. [e] Ibid. 169. B. C. [f] Ibid. vi. 174 A.

*μυήσει δέ με ὁ δεῖνα· προγνώσει χρώμενος ἐς τὸν μετ' ἐκεῖνον ἱεροφάντην, ὃς μετὰ τέτταρα ἔτη τοῦ ἱεροῦ προύστη*[g]: though this date of *four* years, as we shall see by and by, is in error.

It is clear then that the mysteries on this occasion must have been going on after the autumnal equinox. The question is only about the year; and that may be determined as follows.

It appears from the sequel[gg], that Apollonius was still at Athens, at the Dionysia of Anthesterion, that is, the Lenæa: after which he paid a visit to the Amphictyonic council at Pylæ[h], under pretence of delivering a message from the manes of Achilles, with which he had been charged on his way to Athens, at Ilium. Then, to the oracles, Dodona, Delphi, Abæ; and, lastly, to Olympia, to attend the games which were coming on, and to which, it is said, the Eleans had expressly invited him[i].

On his way to Olympia, he passed through the isthmus of Corinth; and something which he said *there* and *then* was construed, as if a prediction of the attempt of Nero to cut through the isthmus, and as afterwards verified by that fact: *Εἶχε δὲ αὐτῷ καὶ τοῦτο πρόρρησιν τῆς σμικρὸν ὕστερον περὶ τὸν Ἰσθμὸν τομῆς, ἣν μετὰ ἔτη ἑπτὰ Νέρων διενοήθη*[k] ... *πῇ δὲ ἀπέβη τὸ τοῦ Ἀπολλωνίου λόγιον; ἡ ὀρυχὴ τὴν ἀρχὴν ἀπὸ τοῦ Λεχαίου λαβοῦσα στάδια προύβη ἴσως τέτταρα...σχεῖν δὲ λέγεται Νέρων τὴν τομὴν κ̀, τ. λ. οἱ δὲ, νεώτερα περὶ τῇ ἀρχῇ δείσαντα*[l].

Now the date of Nero's visit to Greece was certainly A. D. 66, the year after Olymp. ccxi. A. D. 65: and he had returned to Italy by the middle of March, A. D. 67. The work on the isthmus then must have been begun in the latter half of A. D. 66; seven years before which would give Apollonius' visit to the Olympic games, A. D. 59. But A. D. 59 was not an Olympic year. Nor were there any Olympic years, which could have coincided with this period of his history, but two; Ol. ccix. A. D. 57, and Ol. ccx. A. D. 61: and between these, the context down to the time of the second visit to Greece, which we are able to fix to A. D. 68, determines in favour of the latter. The text then of the above passage, in *μετὰ ἔτη ἑπτὰ,* should be corrected by *μετὰ ἔτη πέντε.*

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[g] iv. vi. 175 A–C.

[gg] iv. vii. 177 D.

[h] Ibid. vii. 179 D–180 B. cf. iv. iv. 167 C–v 173 D.

[i] Ibid. viii. 180 D–181 A.

[k] iv. viii. 181 A. B.

[l] Ibid. 181. C. D. cf. v. ii. 215 A. B.

The date of the arrival at Athens consequently was the autumnal quarter, A. D. 60. The mysteries that year began to be celebrated October 5; and the 22nd of Boëdromion, the eighth of the mystical feriæ, on which he landed in the Piræus, was October 12, 18 days after September 24, the Julian date of the autumnal equinox, yet when the weather would naturally be still fine and warm for the climate of Attica.

lxxxvi. Period vii. 42. Cycle xxvii. 4. A. D. 66–67.

Hecatombæon 1, July 19, 18 h. A.D. 66. *Cavus.* Ex. 24.
Boëdromion 1, Sept. 16, 18 h. — — *Cavus.* Ex. 27.

Boëdromion 15–23, September 30—October 8.

The date of Nero's visit to Greece having been A. D. 66, and that of his return to Italy A. D. 67 [m], the mysteries, alluded to by Suetonius [o], as next in order while he was in Greece, must have been those of A. D. 66, Sept. 30 to Oct. 8. And this determines the date of his departure from Rome previously, to some time before September 30, the same year, at least [p].

lxxxvii. Period vii. 44. Cycle xxvii. 6. A. D. 68–69.

Hecatombæon 1, July 26, 18 h. A. D. 68. *Cavus.* Ex. 30.
Boëdromion 1, Sept. 23, 18 h. — — *Plenus.*

Boëdromion 15–23, October 8–16.

Date of the mysteries at which Apollonius was initiated: as may thus be proved.

The date of his first arrival at Athens, as we have seen, was the autumn of A. D. 60, and that of his attendance at the Olympic games, midsummer, A. D. 61. The next year, (consequently A. D. 62,) *Ἀρχομένου ἦρος,* he continued his journey to Rome[q], visiting Crete by the way. This Life by Philostratus indeed is full of chronological difficulties—some of which probably are to be attributed to his biographer's admiration of the subject of it, and his desire to exalt his character; which has made him seize on every thing calculated to have that effect, whether consistent with contemporary history and chronology, or not. We need not be surprised therefore to find him guilty of one anachronism of this kind here; in connecting with this visit to Crete the fact of an earthquake, and that of the appearance of a new island between Thera and Crete, which happened in reality in the reign of Claudius[r], not in that of Nero: and another, in alluding to an eclipse of the sun, after his arrival at Rome[s], which must have been that of April 30, A. D. 59; and on the third day after it, to the fact of Nero's table having been struck with lightning: though that too was an event of U. C. 818, A. D. 65[t]. The context however determines the date of this first arrival at Rome to the spring or summer of A. D. 62[v].

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[m] Cf. our Origines Kalendariæ Ital. iv. 361 sqq.

[o] Vita, xxxiv. 12.

[p] Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, iv. 254, and note.

The length of his stay on this occasion is not specified. But it is plainly implied that the philosophers were in disgrace with Nero; and when he left Rome to go to Greece, he issued an edict, ordering them all to quit the city: *Ἐξελαύνοντος δὲ ἐς τὴν Ἑλλάδα τοῦ Νέρωνος, καὶ προκηρύξαντος δημοσίᾳ μηδένα ἐμφιλοσοφεῖν τῇ Ῥώμῃ, τρέπεται ὁ Ἀπολλώνιος ἐπὶ τὰ ἑσπέρια τῆς γῆς.* That is, when Nero went into Greece, Apollonius set out on a visit to Spain, and to the Straits of Gibraltar[x]. He was there when Nero was contending at the different games in Greece[y]; and the year is recognised as the next to a regular Olympic one, (which could have been only A. D. 65[z]:) *Πατρίου μὲν γὰρ τοῖς Ὀλυμπίοις τοῦ πέρυσιν ἐνιαυτοῦ ὄντος, ἐκέλευσε τοὺς Ἠλείους Νέρων ἀναβαλέσθαι αὐτὰ ἐς τὴν ἑαυτοῦ ἐπιδημίαν*[a].

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[q] iv. x. 192 A.

[r] See our Origines Kal. Italicæ, iv. 122 sqq.

[s] iv. xiv. 203 B–D.

[t] Cf. our Origines Kal. Italicæ, iv. 125 note. It appears however from Tacitus, Ann. xv. 22 (23), that the Gymnasium which Nero had built for the Neronea, and dedicated U. C. 814, A. D. 61 (Ann. xiv. 47. 20. 29,) was struck by lightning, U. C. 815. A. D. 62, in this year of Apollonius' coming to Rome.

[v] iv. xii. 197 C–D.

[x] iv. xvi. 208 A–B.

[y] v. ii. 213 B–D.

[z] Ibid. 213 C–D.

[a] Cf. Eusebius, Chron. Arm. Lat. i. 308. ad Ol. ccxi.: Jerome, in Chron. ad Olymp. ccxi. Syncellus, &c.

Apollonius consequently was in Spain, A. D. 66. The cutting through of the isthmus was now going on[b]; and news of Nero's victories, first at the Olympia, then at the Pythia, reached him at Gades[c]. This visit to the parts of the west therefore was certainly made in the summer of A.D. 66; and while still there, it is said he had a secret interview with the governor of the province (Galba), at the end of which, when taking his leave, he bade him remember Vindex[d]: *Ἔρρωσο ἔφη, καὶ μέμνησο Βένδικος. τί δὲ τοῦτο ἦν; ἐπὶ Νέρωνα ἐν Ἀχαΐᾳ ᾄδοντα τὰ ἔθνη τὰ ἑσπέρια λέγεται κινῆσαι Βένδιξ, κ̀, τ. λ*: and in this allusion to the rising of Vindex, whether prospectively or historically, at this period of the chronology of his life of Apollonius, Philostratus is not far from the truth; for it actually took place before the month of March, A. D. 67[e].

And that Apollonius must have protracted his stay in these quarters beyond this period, A. D. 67, may be inferred from what is next stated; viz. that he left Spain to go to Libya and Italy. (Ἐπὶ *Λιβύην καὶ* Τυρρηνούς)—*φλεγμαινόντων τῶν περὶ τὴν ἑσπέραν*[f]: i.e. not till after A. D. 67, when the rising broke out in Gaul; and that he heard of the death of Vindex (an event of A. D. 68[g]) and of the flight of Nero from Rome, and the beginning of the civil commotions, when he was on his way (partly by land, and partly by sea) from Libya, and had got to Messene in Sicily[h]: for these things all happened between the spring, and the middle of June, A. D. 68; and it is implied that this visit to Africa, after he left Spain, and then to Sicily, must have taken up the best part of the year, so distinguished[i], i. e. A. D. 68.

Some time was spent by him in Sicily; that is, as the context implies, the interval between the beginning of June, A. D. 68 (on the 9th of which the death of Nero happened), and the autumn the same year: *Ἐμφιλοσοφήσας δὲ τῇ Σικελίᾳ χρόνον, ὃς ἀποχρῶσαν αὐτῷ σπουδὴν εἶχεν, ἐπὶ τὴν* Ἑλλάδα *ἐκομίζετο περὶ Ἀρκτούρου ἐπιτολάς*[k]. The date of the Arcturi ortus in the Julian calendar was Sept. 12, and Sept. 16. It may be supposed then that he left Sicily between these dates; and though the length of his voyage to Greece is not specified on this occasion, there is an account of another, in the reign of Domitian, fixed by the context to A. D. 92, when he set out from Sicily also (that is, from Syracuse) at the same time of the year, *περὶ μετοπώρου ἀρχὰς*, and landed at the mouth of the Alpheus, *δι' ἡμέρας ἕκτης*[l].

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[b] v. ii. 215 B. cf. Dio, lxiii. 16: Suetonius, Nero, xix. 3. xxxvii. 8: Vita Apollon. v. vi. 225 B.

[c] v. iii. 215 D–216 B.

[d] Ibid. 217 B.

[e] See our Origines Kalendariæ Italicæ, iv. 362 note.

[f] v. iii. 218 A.

[g] Orig. Kal. Italicæ, loc. cit.

[h] v. iii. 218 A–D.

[i] v. iii. 218 B–iv. 220 A.

[k] v. vi. 224 D.

On this occasion he passed first to Leucas, and from thence to the Lechæum, at Corinth[k], and so on to Athens. And now an allusion occurs to his having been initiated, though the text of Philostratus at present labours under an hiatus[f], which cannot by any ingenuity be filled up: * * *Μυηθεὶς Ἀθήνησιν, ἐμύει δ' αὐτὸν ἱεροφάντης ὃν αὐτὸς τῷ προτέρῳ ἐπεμαντεύσατο.* But there can be no doubt concerning the year, A. D. 68. Consequently *eight* years, not *four*, from the date of the former visit, A. D. 60.

The date of these mysteries would be October 8–16: quite consistent with the supposed date of his voyage from Sicily to the Peloponnese previously, September 12 or 16, and six or seven days later. But had the year of this second arrival at Athens been A. D. 67, the mysteries of that year, Sept. 20–28, would probably have been too early, if he did not leave Sicily before September 12 or 16.

lxxxviii. Period vii. 52, Cycle xxvii. 14, A. D. 76—77.

Hecatombæon 1, July 27, 18 h. A. D. 76, *Cavus*. Ex. 21.

| | | | | |
|---|---|---|---|---|
| i. | Munychion | 1, April 19, 18 h. | — | 77, *Cavus*. Ex. 3. |
| ii. | Thargelion | 1, May 18, 18 h. | — | 77, *Plenus*. |
| iii. | Skirrhophorion | 1, June 17, 18 h. | — | 77, *Cavus*. Ex. 6. |

Plurimi piscium tribus mensibus (pariunt), Aprili Maio Junio[g]: which was taken from Aristotle, De Animalibus[h]: *Τίκτουσι δ' οἱ πλεῖστοι τῶν ἰχθύων ἐν μησὶ τρισὶ, Μουνυχιῶνι Θαργηλιῶνι Σκιρροφοριῶνι.* The date of the Historia Naturalis of Pliny was A D. 76-77[i]. It is clear from this passage that he considered the Roman April, May, and June, to answer to the Attic Munychion, Thargelion, and Skirrhophorion, respectively. But this statement is calculated to illustrate the relation of these months in the Metonic calendar, to the Julian generally, rather than in any particular year. And there was no year of the cycle in Pliny's time in which Munychion did not begin in April, Thargelion in May, and Skirrhophorion in June; and some years there were, as the second, the seventh, the tenth, the fifteenth, and the eighteenth, in which they were almost the same from first to last.

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[l] viii. vi. 415 C. D.

[f] v. vi. 225 A.

[g] Pliny, H. N. ix. 74. 807.

[h] v. 11. 121, 30. cf. Gaza, De Mensibus, iii. 282 A. B: iv. 282 D. E: viii. 290 B. C.

[i] See our Origines Kal. Italicæ, iv. 179 note.

lxxxix. Period viii. 13, Cycle xxix. 13, A. D. 113—114.

| | | | | | |
|---|---|---|---|---|---|
| | Hecatombæon | 1, July | 9, 18 h. | A. D. 113, | *Plenus.* |
| i. | Posideon B | 1, Jan. | 2, 18 h. | A. D. 114, | *Plenus.* |
| ii. | Anthesterion | 1, March | 2, 18 h. | — | *Plenus.* |

Period viii. 14, Cycle xxix. 14, A. D. 114—115.

| | | | | | |
|---|---|---|---|---|---|
| | Hecatombæon | 1, July | 28, 18 h. | A. D. 114, | *Cavus.* Ex. 21. |
| iii. | Metageitnion | 1, Aug. | 26, 18 h. | — | *Plenus.* |

Metageitnion 15, September 10.

i. Χειμῶνος ἐν τροπαῖς ὄντος, ἱσταμένου Ἰανουαρίου μηνὸς, (οὗτος δ᾽ ἂν εἴη Ποσειδεὼν Ἀθηναίοις,) ἀφῆκεν εἰς τὸ πέλαγος[k].

ii. Ἑλεῖν δὲ τὰς Ἀθήνας αὐτός φησιν ἐν τοῖς ὑπομνήμασι Μαρτίαις καλάνδαις, ἥτις ἡμέρα συμπίπτει μάλιστα τῇ νουμηνίᾳ τοῦ Ἀνθεστηριῶνος μηνός[l].

iii. Εἰδοῖς οὖν Σεπτεμβρίαις, ὃ συντυγχάνει περὶ τὴν πανσέληνον μάλιστα τοῦ Μεταγειτνιῶνος, ἠθροισμένων ἁπάντων εἰς τὸ Καπιτώλιον[m], κ᾽, τ. λ.

iv. Ἔστι δὲ ὁ μὴν οὗτος περὶ Πλειάδα, σπόριμος, ὃν Ἀθὺρ Αἰγύπτιοι, Πυανεψιῶνα δ᾽ Ἀθηναῖοι, Βοιωτοὶ δὲ Δαμάτριον καλοῦσι[n].

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[k] Plutarch, Cæsar, xxxvii. cf. De Fortuna Rom. vi.

[l] Plutarch, Sulla, xiv. cf. of this date, our Origines Kal. Italicæ, iii. 281 sqq.

[m] Poplicola, xiv.

[n] De Iside et Osiride, lxix.

We have here four different statements: i. That the Attic Posideon agreed with the Roman (or Julian) January. ii. That the Attic Anthesterion agreed with the Roman March. iii. That the Attic Metageitnion agreed with the Roman September. iv. That the Attic Pyanepsion agreed with the seed month in the natural year, which was the Roman November. And that these statements are consistent will be seen from the following scheme:—

*Attic months compared with the Roman in the time of Plutarch.*

| | | | | | |
|---|---|---|---|---|---|
| * Posideon | = | * Januarius | Skirrophorion | = | Julius |
| Gamelion | = | Februarius | Hecatombæon | = | Augustus |
| * Anthesterion | = | * Martius | * Metageitnion | = | * September |
| Elaphebolion | = | Aprilis | Boedromion | = | October |
| Munychion | = | Maius | * Pyanepsion | = | * November |
| Thargelion | = | Junius | Mæmacterion | = | December |

We must conclude therefore that Plutarch had some reason for these parallelisms; and the most probable one is that such was the actual relation of the Attic months to the Roman, when he was writing these Lives; and if so, as the effect of time, in the interval between the epoch, B. C. 432, and this time whatsoever it was: for that such parallelisms could not with any propriety have been supposed between the Metonic calendar, as it stood originally, and the Julian, in the sense of the Roman, is almost self-evident: the latest Julian term of Posideon in the first Metonic cycle having been December 16; the latest of Anthesterion, Feb. 24; the latest of Metageitnion, August 20; the latest of Pyanepsion, October 18.

The fourth of these parallelisms, in which the Attic Pyanepsion is compared also with the Egyptian Athyr, is an important one, for the illustration of the Macedo-Egyptian calendar; and therefore must be reserved for the present. With respect to the other three, and as an argument of the state of the vulgar Metonic calendar, in the time of Plutarch, or when he was writing his lives; a date occurs in the Life of Sulla, which proves that he must have been writing that life in particular about 200 years after the battle of Orchomenus[o]: *῞Ωστε μέχρι νῦν πολλὰ βαρβαρικὰ τόξα καὶ κράνη, καὶ θωράκων σπάσματα σιδηρῶν, καὶ μαχαίρας ἐμβεβαπτισμένας τοῖς τέλμασιν εὑρίσκεσθαι, σχεδὸν ἐτῶν διακοσίων ἀπὸ τῆς μάχης διαγεγονότων.* The date of this battle was B. C. 86[p]: 200 years from which complete would give the Life of Sulla, A. D. 115, 198, A. D. 113. And it contributes greatly to confirm this latter date that, as our Metonic calendar shews, the first of Anthesterion, reckoned from sunset that year, fell on March 2 Julian, and March 2 Julian, as our Roman calendar shews[q], fell on March 1 Roman; and the first of Posideon B. previously on January 2 Julian, January 1 Roman; and the 15th of Metageitnion subsequently on September 10 Julian, September 11 Roman, only two days before September 13, the ides of the same month. Whether these coincidences are sufficient to authorize the inference that these three lives in particular, (the Cæsar, the Sulla, and the Poplicola,) were actually written about this time, or even in this very year, A. D. 113–114, we leave to the judgment of the reader *.

* The chronology of the Lives of Plutarch, at well as that of the rest of his works, is a very intricate subject. With respect to his personal history; there is abundance of evidence in his extant remains that he must have been living and flourishing from the reign of Nero to that of Trajan. He tells us he was sometime or other in his life time ascribed to the tribe Leontis at Athens[1]. The story which he records in his Amatorius[2], relating to Sabinus and his sons, would imply that he must have been living as late as the rebellion of the Jews in Egypt, in the 18th of Trajan[3], A. D. 115 or 116. Eusebius supposes him to have been still alive in the third of Adrian, A. D. 119 or 120[4]: and Cassiodorius dates his acme itself Coss. Paterno et Torquato[5], A. D. 123 or 124. Syncellus informs us[6] that he was appointed governor of Greece by Adrian, at a very advanced age: though Suidas, in the short memoir which he has left of him[7], ascribes his appointment to Trajan: Πλούταρχος Χαιρωνεὺς τῆς Βοιωτίας, γεγονὼς ἐπὶ τῶν Τραϊανοῦ τοῦ Καίσαρος χρόνων καὶ ἔτι πρόσθεν. μεταδοὺς δὲ αὐτῷ Τραϊανὸς τῆς τῶν ὑπάτων ἀξίας, προσέταξε μηδένα τῶν κατὰ τὴν ᾿Ιλλυρίδα (corrige ῾Ελλάδα) ἀρχόντων παρὲξ τῆς αὐτοῦ γνώμης τι διαπράττεσθαι. He was dead when the Oneirocritica of Artemidorus was composed[8]: and

xc. Period viii. 27, Cycle xxx. 8. A. D. 127–128.

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[o] Sulla, xxi..

[p] Cf. our Orig. Kal. Ital. iii. 281 sqq.

[q] In Anno. Origines Kal. Italicæ, iv. pag. xcv.

[1] Sympos. i. Problema, x. cap. i.

[2] xxiv. xxv.

[3] Cf. our Dissertations on the Principles and Arrangement, &c. vol. ii. 79, 80: 126, 127: iv. 87.

[4] Chron. Arm. Lat. ii. 283. cf. Jerome, ad Olymp. ccxxiv

[5] In Chronico.

[6] 659. 13.

[7] Πλούταρχος.

[8] iv. 74. cf. our Dissertations, &c. vol. iv. 574 note.

| | | | | | |
|---|---|---|---|---|---|
| Hecatombæon | 1, July 6, | 18 h. | A. D. 127, | *Cavus.* | Ex. 3. |
| Boëdromion | 1, Sept. 3, | 18 h. | ——— | *Cavus.* | Ex. 6. |
| Elaphebolion | 1, Mar. 27, | 18 h. | A. D. 128, | *Plenus.* | |

i. Boëdromion 1, Sept. 4, A. D. 127.

Date of the Attic Julian calendar, adopted this year, and

when A. Gellius was residing at Athens in the reign of Antoninus Pius, as appears from many places in his Noctes Atticæ: and Sextus of Chæronea, his sister's son, was a contemporary of Marcus Aurelius[9], and one of his preceptors.

With respect to his Lives, most of them are dedicated to Sosius Senecio, a distinguished character, in the reign of Trajan, and Consul U. C. 860, A. D. 107. In repeated instances they themselves ascertain the order in which they were written; and as he tells us in the life of Demosthenes[10], that he applied himself to the study of Roman history and antiquities, and even of the Roman language and its literature in general, only *ὀψέ ποτε καὶ πόρρω τῆς ἡλικίας*, we may reasonably infer that all the Parallel Lives were written by him late in life. In fact, it appears that he some time or other made a present of them all, or of the greater part of them, now complete, along with the 'Αποφθέγματα[11], to Trajan; and as in his treatise De Primo Frigido[12], he mentions the wintering of Trajan among the Daci, he was clearly contemporary with Trajan's Dacian wars, U. C. 854–859, A. D. 101–106. And from the allusion to the triumph of Ventidius[13], as the only one ever gained until then by any Roman commander over the Parthians, it may be inferred that his Lives were written before the Parthian expedition of Trajan—and the successes which attended that.

On this expedition he set out in the latter part of A. D. 114[14]. Between A. D. 107, the end of Trajan's Dacian wars, and A. D. 114, the beginning of his eastern campaigns, Trajan was at Rome, or in Italy; and such a present as the Parallel Lives of Plutarch, even if not finished before A. D. 113 or 114, might then have been made him on the spot.

We will add that the date which occurs in the Comparatio Solonis et Poplicolæ[15], (600 years after the death of Poplicola, U. C. 250 or 251,) which would seem to make the date of that Life in particular U. C. 850 or 851, A. D. 97 or 98, is only a general, or round number, fixed on probably because it coincided with the first of Trajan. Cf. on the time of Plutarch, Mr. Clinton's Fasti Romani, ad A. D. 98 and 106.

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[9] Cf. Suidas, Σέξτος: and M. Antoninus, De Rebus Suis, i. 9: and Historiæ Augustæ SS. Marcus Antoninus, 3.

[10] Cap. ii.

[11] Præfatio ad Reg. et Imper. Apoph.

[12] Cap. xii.

[13] Antonius, xxxiv.

[14] See our Dissertations on the Principles &c. ii. 124, 125: iv. 415 sqq.

[15] Cap. i.

taken from the Metonic of the time being, as we hope to shew in the next chapter.

### ii. Elaphebolion 11–13, April 7–9, A. D. 128.

Date of the Dionysia celebrated at Athens, the same year, under the auspices of Adrian.

### xci. Period viii. 46, Cycle xxxi. 8, A. D. 146–147.

Hecatombæon 1, July 6, 18 h. A. D. 146, *Cavus.* Ex. 3.
Anthesterion 1, Feb. 27, 18 h. A. D. 147, *Cavus.* Ex. 15.

Anthesterion 15 = 16, March 14 = 15 Roman, A. D. 147.

### Period vi. 8, Cycle xxi. 8, B. C. 45–44.

Hecatombæon 1, July 3, 18 h. B. C. 45, *Cavus.* Ex. 3.
Anthesterion 1, Feb. 24, 18 h. B. C. 44, *Cavus.* Ex. 15.

Anthesterion 15 = 16, March 11, B. C. 44.

*Οὕτω μὲν δὴ Γάϊος Καῖσαρ ἐτελεύτησεν, ἐν ἡμέραις αἷς καλοῦσιν εἰδοῖς Μαρτίαις, Ἀνθεστηριῶνος μάλιστα μέσου*[r]. In what manner this date was obtained, and how it serves to illustrate the Roman calendar of Appian's time, and the Metonic, both B. C. 45–44, and A. D. 146–147, has been particularly explained in our Origines Kalendariæ Italicæ[s].

### xcii. Period viii. 65, Cycle xxxii. 8, A. D. 165–166.

Hecatombæon 1, July 6, 18h. A. D. 165, *Cavus.* Ex. 3.

Hecatombæon 11, July 16.

Date of the Games, Olymp. ccxxxvi.; very important to the illustration both of the Olympic calendar, and of the vulgar Metonic one, which was the same with it: as we hope to see hereafter.

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[r] Appian, De Bell. Civ. ii. 149.

[s] v. 207 sqq.

xciii. Period viii. 76, Cycle xxxii. 19, A. D. 176–177.

Hecatombæon 1, July 3, 18 h. A. D. 176, *Cavus.* Ex. 18.
Boëdromion 1, Aug. 31, 18 h. ——— *Cavus.* Ex. 21.

Boëdromion 15–23, Sept. 14–22, A. D. 176.

Date of the Mysteries, at which the Emperor Marcus Aurelius was initiated, on his return from Asia: Orientalibus rebus ordinatis (A. D. 175–176) Athenis fuit, et inter alia Cereris templa adiit, ut se innocentem probaret: et sacrarium solus ingressus est. revertens ad Italiam navigio tempestatem gravissimam passus est[t]. Philostratus has preserved a passage from one of his letters, written from Asia after the death of Faustina his queen (A. D. 174[v]), to Herodes Atticus, at Athens[x]: Εἰ δέ τι λελύπηκά σε ἢ λυπῶ, ἀπαίτησον παρ' ἐμοῦ δίκας ἐν τῷ ἱερῷ τῆς ἐν ἄστει Ἀθηνᾶς ἐν μυστηρίοις. ηὔξαμην γὰρ ὁπότε ὁ πόλεμος μάλιστα ἐφλέγμαινε καὶ μυηθῆναι. εἴη δὲ καὶ σοῦ μυσταγωγοῦντος[y]. But Herodes did not live to see him at Athens[z]. This initiation is mentioned by Xiphilinus also[a], and dated as if 46 + 16 or 62 years from the occasion alluded to in the time of Adrian[b], A. D. 117 or 118; which would make it A. D. 178, at the earliest[c]. But the true year was the consular one of Pollio and Aper, U. C. 929, A. D. 176[d]: and Marcus had already come back to Rome by November 27 that year[e]. The Mysteries fell early this year, Sept. 14–22. Marcus would be returning in October, when he might have encountered bad weather (as it is said he did) by the way.

xciv. We have no specific date to adduce under this number; but the following passage occurs in Athenæus[f]. in the shape of an extract from the Ὑπομνήματα of an author, called Hegesander, which probably belongs to this period in general*: and if so, it is of some importance to our present purpose.

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[t] Capitolinus, Antoninus Phil. 27: cf. Gallieni duo, 10, 11: Dio, lxxi. 31.

[v] Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, v. 544. 574. note. Also Dio, lxxi. 22–27: 28, 29. 30, 31.

[x] Vitæ Sophist. ii. 561 B–D. Herodes.

[y] Cf. ii. 585 B. D.

[z] Cf. our Dissertations, &c. for the chronology of the Life of Herodes, vol. v. 542 sqq. note. Philostratus, Vitæ Soph.—the Sophist who occupied the Professor's chair at the actual time of this visit, and was in office when Marcus was initiated (585 B–D.), was Adrianus—appointed by Marcus, after the death of Herodes, 583 D. 585 B. cf. Suidas, Ἀδριανός.

[a] Dio, lxxi. 31, 32.

[b] lxix. 7. lxxi. 32: Histor. Augustæ SS. Adrian. 7: Anton. Philos. 17. 16. 27.

[c] Cf. also lxxi. 32: Marcus, absent 8 years previously to his return—dated from the departure after the death of Verus, A. D. 169 or 170: Anton. Phil. 17: and our Dissertations, &c. iv. 556. 559.

[d] Historiæ Aug. SS. Commodus, 2.

[e] Ibid. 12.

*Περὶ Ἀπολλωνίαν τὴν Χαλκιδικὴν δύο ποταμοὶ ῥέουσιν, Ἀμμίτης καὶ Ὀλυνθιακός· ἐμβάλλουσι δὲ ἀμφότεροι εἰς τὴν Βόλβην λίμνην. ἐπὶ δὲ τοῦ Ὀλυνθιακοῦ μνημεῖόν ἐστιν Ὀλύνθου, τοῦ Ἡρακλέους καὶ Βόλβης υἱοῦ. κατὰ δὲ τὸν Ἀνθεστηριῶνα καὶ Ἐλαφηβολιῶνα λέγουσιν οἱ ἐπιχώριοι διότι πέμπει ἡ Βόλβη τὸν ἀπόπυριν* (a sort of fish) *Ὀλύνθῳ, καὶ κατὰ τὸν καιρὸν τοῦτον ἀπέραντον πλῆθος ἰχθύων ἐκ τῆς λίμνης εἰς τὸν Ὀλυνθιακὸν ἀναβαίνειν ποταμόν. ἔστι δὲ βραχὺς, ὥστε μόλις κρύπτειν τὸ σφύρον· ἀλλ' οὐδὲν ἧττον τοσοῦτον ἔρχεται πλῆθος ἰχθύων, ὥστε τοὺς περιοίκους ἅπαντας ἱκανὸν εἰς τὴν ἑαυτῶν χρείαν συντιθέναι τάριχος. θαυμαστὸν δέ ἐστι τὸ μὴ παραλλάττειν τὸ τοῦ Ὀλύνθου μνημεῖον. πρότερον μὲν οὖν φασι τοὺς κατὰ τὴν Ἀπολλωνίαν Ἐλαφηβολιῶνος τὰ νόμιμα συντελεῖν τοῖς τελευτήσασι, νῦν δὲ Ἀνθεστηριῶνος. διὰ ταύτην οὖν τὴν αἰτίαν μόνοις τούτοις τοῖς μησὶ τοὺς ἰχθῦς τὴν ἀνάβασιν ποιεῖσθαι, ἐν οἷς τοὺς τετελευτηκότας εἰώθασι τιμᾶν.*

The meaning of this latter statement, it appears to us, is that the Parentalia had changed their month not in the calendar of Olynthus, but in the Attic; and that whereas the usual time of that ceremony at Olynthus had formerly corresponded to the Attic month Elaphebolion, it was now corresponding to the Attic month Anthesterion: implying that in the meantime, owing to the gradual advance of the Metonic months on any given term in the natural or Julian year, or on any given date of a calendar regulated by the Callippic correction, Anthesterion had come to correspond to the Parentalial month, and Elaphebolion had ceased to do so.

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* Athenæus, ii. 21; iv. 8. 74; x. 40. 63; xi. 54; Hegesander was of Delphi, and his work was entitled Ὑπομνήματα, Memorandums or Commentaries: cf. iii. 25. 33. 70; iv. 53; vi. 53. cf. 55. 57; viii. 19. 68, &c. He was later than Stratonicus (viii. 42–45. cf. 46): later than Dikæarchus (xi. 58): later than Antigonus Gonatas (ix. 63): later than Euphorion (xi. 54), where the ἄρχη of the work is quoted. Cf. i. 31. 34; ii. 37; iv. 64; vi, 14. 76. cf. vii. 34. 126; viii. 25; xi. 116; xii. 63; xiii. 16. 21. 48. 61; xiv. 13. 73.

[f] viii. 11.

xcv. Period x. 12, Cycle xxxvii. 12, A. D. 264–265.

Hecatombæon 1, July 22, 18h. A.D. 264. *Cavus.* Ex. 15.
Boëdromion 1, Sept. 19, 18h. ——— *Cavus.* Ex. 18.

Boëdromion 15–23, October 3–11, A. D. 264.

Date of the archonship of the Roman emperor Gallienus, and of the mysteries at which he was initiated, Gallieno et Saturnino Coss.[g] U. C. 1017, A. D. 264—if they were still celebrated by the lunar calendar.

## CHAPTER VII.

### *On the Attic Julian Calendar.*

SECTION I.—*The history of the Attic Solar or Julian Calendar necessary to the continuation and completion of that of the Lunar.*

The history of the Attic lunar calendar has thus been brought down from B.C. 592 to A. D. 264; through a period of 855 years: but it cannot yet be considered complete while it is still open to a question whether this old lunar calendar did not some time or other pass into the solar again; and if it did, into what kind of solar? and what was the date of the transition? These inquiries are too closely connected with the preceding subjects, not to suggest themselves before we take our leave of them: nor can we properly conclude our account of the first type of the Greek lunar correction of the primitive solar year without tracing its history down to the time when this too, like every other of later date, was merged in the Julian. The obscurity indeed and difficulty of this further question is greater than that of any other which has yet been considered; nor do we flatter ourselves that we shall be able to clear it up beyond the possibility of doubt: though we believe that we have discovered a clue by which much may be done towards its solution.

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[g] Historiæ Augustæ SS. Gallienus, 10, 11, 12. cap. 11: also Saloninus, 3: Carus, 3.

## SECTION II.—*On the kind and form of the Attic year in the time of Galen.*

We shall begin with determining, if possible, a point of time at which it may be assumed with every degree of probability, if not with certainty, that there must have been an Attic solar calendar, as well as a lunar one; or an Attic solar calendar only, and no longer a lunar one. And this point may perhaps be determined by means of the testimony of Galen.

The date of the Κυνὸς ἐπιτολὴ, or heliacal rising of Sirius, has been assigned by Galen in terms of one of the Attic months, and consequently of those of his own time; and as this date is very important to our present purpose, we must produce it [h].

Φύσει γὰρ οὔσης ἀεὶ τῆς θερινῆς ὥρας θερμῆς, ὅταν ἄπνοια προσγένηται πνῖγος ἐξ ἀνάγκης ἕπεται. ὃ γίνεσθαι συμβαίνει μήτε τῶν προδρόμων καλουμένων πνευσάντων μήτε τῶν ἑπομένων αὐτοῖς οὓς καλοῦσιν ἐτησίας ... θερμοτάτης δὲ τοῦ θέρους ὥρας οὔσης τὴν τοῦ κυνὸς ἐπιτολὴν γίνεσθαι συμβαίνει. χρόνος δ' ἐστὶν οὗτος ἡμερῶν τεσσαράκοντα. γίνεται δὲ τοῦτο πέμπτῃ καὶ δεκάτῃ ἡμέρᾳ τοῦ Μεταγειτνιῶνος μηνός. πρὸ δὲ τούτου ἐπιτολῆς ὀκτὼ σχεδὸν ἡμέρας οἱ βορέαι πνέουσιν οὓς προδρόμους καλοῦσι· δυσὶ δὲ μετὰ τὴν ἐπιτολὴν ἡμέραις οἱ αὐτοὶ βορέαι εὐσταθῶς πνέουσιν ἡμέραις τεσσεράκοντα, οὓς ἐτησίας εἰώθασι καλεῖν *.

There are other passages either of this same treatise, or of others, which serve to illustrate this statement; more especially with respect to the usual time of the setting in of the Etesiæ, and that of the first appearance of the dog-star, relatively to the period thus assigned to the hottest part of the summer: i. Γίνεται δὲ τοῦτο (excess of heat at midsummer) μήτε τῶν προδρόμων καλουμένων πνευσάντων, μήτε τῶν ἑπομένων αὐτοῖς,

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* The language of the latter part of this passage is so similar to that of Pliny, H. N. ii. 47—Hujus (*Canis*) exortum diebus octo ferme aquilones antecedunt, quos prodromos appellant (dated vi. Id. Julias, July 10 Roman). post biduum autem exortus (July 19 or 20) iidem aquilones constantius perflant, his diebus quos etesias appellant—that we might almost suppose Galen had the Natural History before him, and merely turned its words into Greek.

[h] Opp. xvii. Pars i. 387. 7–388. 3. In Epidem. ii. Comm. iii. 2.

*οὓς καλοῦσιν ἐτησίας. διορίζει δ' αὐτοὺς καὶ ἡ τοῦ κυνὸς ἐπιτολή*[i] —ii. *Εἰσὶ δὲ καὶ οἱ ἐτησίαι ... οὗτοι γοῦν κατὰ τὴν τοῦ κυνὸς ἀνατολὴν πνέουσι, καὶ τὸ καῦμα τοῦ θέρους πραΰνειν εἰώθασι, καὶ πνῖγος, (ὅπερ) ἐξ ἀνάγκης ἕπεται, τοῦ θέρους ὄντος τῇ φύσει θερμοῦ ἀεὶ, (εἰ) μήτε οἱ πρόδρομοι καλούμενοι πνέουσι μήτε οἱ ἑπόμενοι, οὓς καλοῦσιν ἐτησίας, οὕσπερ αὖ διορίζει ἡ τοῦ κυνὸς ἐπιτολή*[k].

The date of the rising of the dog-star, in terms of the Attic calendar for the time being, is thus fixed to Metageitnion 15. In further explanation of this date, it is to be observed, i. That such statements as these, in Galen, wheresoever they occur, are probably to be understood of the parallel of Pergamus, considered as the same with that of the Hellespont: as may be inferred from an observation of his own[l]: *Αὐτίκα γέ τοι κατὰ τὸν τῆς Ἑλλησπόντου παράλληλον ἀρχὴ μὲν τοῦ ἦρός ἐστιν ἡ κατ' ἐκεῖνον τὸν καιρὸν ἰσημερία, τελευτὴ δὲ τῶν πλειάδων ἡ ἐπιτολή· αὕτη δὲ καὶ θέρους ἐστὶν ἀρχή.* ii. It appears from his own testimony also that the rising of Sirius was an acknowledged date among the Greeks every where, for the middle term of a period of *forty* days, (twenty *before* and twenty *after* the rising,) the hottest part of the summer season[m]: *Ὥραν ἔτους ὀνομάζουσιν οἱ Ἕλληνες ἐκεῖνον τὸν καιρὸν, ἐν ᾧ μεσοῦντι τὴν τοῦ κυνὸς ἐπιτολὴν γίγνεσθαι συμβαίνει· χρόνος δ' ἐστὶν οὗτος ἡμερῶν τεσσαράκοντα*—*Ποιῶ δὲ τοῦτο* (a certain medicine, *squills*,) *κατ' ἐκείνην τοῦ ἔτους τὴν ὥραν ἐν ᾗ τὴν τοῦ κυνὸς ἐπιτολὴν ἅπαντες Ἕλληνες πεπιστεύκασιν· αὗται δέ εἰσιν ἡμέραι τεσσαράκοντα, πρὸ μὲν αὐτῆς τῆς ἐπιτολῆς εἴκοσι, ἴσαι δὲ αὐταῖς τὸν ἀριθμὸν αἱ μετ' αὐτήν*[n]: the antiquity of which belief, and very possibly its origin, we had occasion to illustrate in our remarks upon Hesiod[o]. iii. It is also to be observed, that midsummer, according to Galen (as we hope to see hereafter), was dated on the first of Loüs in the solar calendar of Pergamus; and the first of Loüs on the 24th of June: on which supposition, this date of the rising of Sirius, at the very middle of this period of 40 days reckoned from midsummer, must have been twenty days exactly after June 24, i. e. July 14*. iv. With regard to the year of which this statement is to be first and properly understood, it cannot be determined, because the date of this particular commentary on the Epidemia is not known. Thus much however may be affirmed; that Galen's commentaries on the works of Hippocrates in general were among the latest of his productions; and that this particular commentary on the Morbi Vulgares could not have been written before the beginning of the reign of Commodus, A. D. 181, or even that of the reign of Severus, A. D. 193.

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[i] xvii. Pars i. 657. 13. In Epidem. Γ. Comm. iii. 6. Cf. Ibid. Pars ii. 581. 17.–582. 1.

[k] xvi. 410. l. 10: in Hipp. *Περὶ χυμῶν* iii. 13. Cf. xi. 44. 5. *πρὸς Γλαύκωνα θερ.* i. 15.

[l] xvii. P. i. 16, last line—17. 2. in Epidem. i. 1.

[m] vi. 558. l. 4. *περὶ τροφῶν δυνάμεως*, ii. 2.

[n] Opp. xi. 377. 10–14. *Τῷ ἐπιλ. παιδὶ ὑποθ.* Cf. Pliny, H. N. xxxiii. 35. p. 133: xxxiv. 28. p. 316: Columella, xii. 12. § 2: Palladius, viii. Tit. vii.

[o] Vol. i. 228.

Now forasmuch as the rising of any of the fixed stars was a stated phenomenon, which for a given parallel was constant, or might reasonably have been assumed to be so; this date of the *Κυνὸς ἐπιτολὴ*, for the parallel of the Hellespont or Pergamus, (Metageitnion 15 in terms of the Attic calendar for the time being,) cannot in the nature of things be supposed intended of the Lunar calendar; but, if of any calendar proper and peculiar to the Athenians at the time, only of some solar or Julian one †. This testimony of Galen's then is demonstrative of the existence of an Attic solar calendar, at the latest in the reign of Severus; if not as early as that of Commodus. Moreover, it is necessarily to be inferred from it that, if the 15th of Metageitnion in this calendar coincided with July 14, the first must have coincided with June 30. And that is all which can be directly deduced from it in reference to the present question; but there is other testimony distinct from this, which will be found to come in here, and not only to confirm the conclusion at which we have arrived from this, but to enable us to carry our inferences on the same point still further.

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* On this principle the stated date of the rising, in the Celestial calendar, would be the 20th of Cancer, or Karkinon; but the period of the dog-days, twenty days later, would extend to the 10th of Leo, or Leonton: and this serves to explain another statement of Galen's, relating to a practice of Æschrion's, one of his own teachers in medicine, and a citizen of Pergamus, like himself, as to the composition of a certain medicine: Οὗτος *ὁ Αἰσχρίων εἶχεν ἀεὶ παρεσκευασμένον ἕτοιμον ἐπὶ τῆς οἰκίας τὸ φάρμακον, ὥρᾳ θέρους κάων τοὺς καρκίνους, μετὰ τὴν τοῦ κυνὸς ἐπιτολὴν, ἡνίκα (ἐν) Λέοντι ἥλιος ἦν. ἡ σελήνη δὲ ὀκτωκαιδεκαταία*: xii. 357. 2. Simplicium Compos. xi. 34.

† It is evident that, in our reasonings from this statement of Galen's, we are not concerned with the question whether the 15th of Metageitnion, here assigned as the date of the phenomenon in question for the parallel in question, was so truly or not; but simply with that of the particular Julian term denoted by the 15th of Metageitnion itself; which, as we have seen, must have been July 14. With respect to this Julian term, as the stated Julian date of such a phenomenon for the latitude of Pergamus, and in the time of Galen; we need not hesitate to admit that it must have been many days in defect of the truth. The stated Julian date of this phenomenon for the latitude of Memphis in Egypt at this time was only July 20, and for the latitude of Pergamus, eleven degrees more to the

## SECTION III.—*On the kind and form of the Attic year recognised by Epiphanius.*

If we are permitted to treat of the ancient Cappadocian calendar, we shall have occasion to produce a variety of parallelisms, which Epiphanius has instituted in his work Adversus Hæreses, between his own date of the Nativity, January 6, and his own date of the Baptism, November 8[p], and the corresponding dates according to many calendars, different from the Julian, which were in existence in his own time: and among these, two from an Attic calendar, one which corresponded to his Julian date of the Nativity, Mæmacterion 6, the other, which corresponded to his Julian date of the Baptism, Metageitnion 7: from the former of which we obtain the first of Mæmacterion in his time, January 1, and from the latter, the first of Metageitnion, November 2.

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north, it must have been ten or eleven days later at least †. Usher, in his treatise De Macedonum et Græcorum anno Solari, (cap. i.) has quoted the following from Oribasius (a native of Pergamus also, and a contemporary of the emperor Julian's), which bears upon this point: Ἡ *μὲν γὰρ ἰσημερία κοσμικόν τι πρᾶγμά ἐστιν, οἱ δὲ μῆνες ἐπιχώριοι καθ' ἕκαστον ἔθνος . . . μηνὸς Λώου φθίνοντος πέμπτη δ' ἂν* (the 26th) *ἀνατέλλοντος ἡλίου ὁ Κύων ἐπιτέλλειν παρ' ἡμῖν ἐν Περγάμῳ πεπίστευται. ἐγὼ δὲ εὗρον ἔκ τινος μεθόδου μετὰ δεκάτην ἡμέραν τῆς προθεσμίας ταύτης.* The 26th of Loüs corresponded to July 19, and ten days after would be July 29—much nearer the actual date of the heliacal rising of Sirius, for the latitude of Pergamus, than July 19, and much more July 14. The critical circumstance however of Galen's date is simply this, that it was the middle term of forty days, reckoned from June 24: and if so, July 14.

† Cf. our Fasti Catholici, iii. 69. *n.*

[p] Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, iii. 629, 630.

There can be no doubt that these Attic dates were intended of solar ones of their kind, as much as any of the rest—all at least but those which were taken from the Hebrew calendar of the time being; and the date of the work in which these parallelisms are found (as we hope to demonstrate) having been A. D. 375–376, the existence of an Attic solar calendar in the time of Epiphanius is hereby recognised, as much as in the time of Galen by the testimony last produced. Nor is it any thing extraordinary, but rather *a priori* to have been expected, that, if there was such a calendar in the time of Galen, there should still have been one in that of Epiphanius.

If however we proceed to analyse these Attic dates of Epiphanius, in order to discover whether they agree or disagree with that of Galen; we see, that the first of Metageitnion at this time falling November 2, and the first of Mæmacterion January 1, there must have been a month between them, the name of which probably was Pyanepsion, and the Julian date still more probably was December 2: so that we might venture to state the names and the Julian dates of three consecutive Attic months in the time of Epiphanius, as follows:

*Attic months in the time of Epiphanius, A. D.* 375–376.

| | |
|---|---|
| Metageitnion, | November 2. |
| Pyanepsion, | December 2. |
| Mæmacterion, | January 1. |

And it is manifest that the first two of these must have been of the same length; and each have had 30 days: from which it would follow that if they made part of a solar calendar, and so far of a Julian, it could not have been of a Julian in the sense of *the* Julian properly so called; for one of its months at least (Pyanepsion) could have had only 30 days, while the corresponding Julian month (December) had 31. It is possible then, (and it would be only agreeable to the analogy of these two months, were it the case,) that the month before Metageitnion and the month after Pyanepsion were months of 30 days also: in short, that the first of Metageitnion having been determined by Epiphanius' own testimony to November 2, the first of the month before that might be determinable to October 3, and the first of the month before that too to September 3. Let us here stop to compare the results, thus virtually implied in the testimony of Epiphanius, with the conclusion obtained from the testimony of Galen.

### SECTION IV.—*Comparison of the Attic Solar year of Galen with that of Epiphanius.*

Now it has been seen, from the testimony of Galen, that a certain Attic solar month in his time bore date June 30; and it appears from this of Epiphanius that one in his time bore date November 2, and another January 1; from which it was necessarily to be inferred that a third must have borne date December 2. And three months in sequence thus bearing date November 2, December 2, and January 1 respectively, it seemed to be only consistent and agreeable to analogy that the rest of the months in the same calendar should have been months of 30 days also; and one of them have borne date October 3, another September 3, and so on. In like manner, if the Attic solar calendar, in the time of Galen, consisted of months of 30 days also, as much as that in the time of Epiphanius, and one of *them* bore date June 30, the next must have borne date July 30; and the next to that August 29: and that would come very near to the date of one of Epiphanius' months, the last but one before his Metageitnion, September 3, though it would not exactly come up to it.

The difference however between August 29 and September 3, in the Julian calendar, is five days: and five days was the amount of the *epact* in the equable solar year; i. e. of the difference between the sum of the twelve months in the equable solar year, each of them 30 days long, and that of the corresponding twelve in the proper Julian year. And if the Attic solar calendar in the time of Epiphanius really consisted of twelve months of 30 days each, and no more, it must have had these five days, over and above its last month; and if the Attic solar year in the time of Galen did not differ in this respect from that year in the time of Epiphanius, it must have had them too.

It is manifest then that, in order to reconcile the idea of this year as obtained from the testimony of Galen, with the same thing as inferrible from that of Epiphanius, nothing is necessary except to suppose that the month which Galen called Metageitnion was the *eleventh;* and that which Epiphanius called by the same name was the *third.* On this supposition every thing will be consistent. The eleventh month in each of these schemes will bear date June 30; the twelfth July 30; the Epagomenæ in each August 29; and the first month September 3. The names of the months in each, so far as we have yet discovered, will not agree throughout; but while their order and their Julian dates are the same, the difference of names in some instances may be considered accidental. And the names of the months in either being purposely left out of sight, a scheme might be formed of both, founded on the data supplied by either in contradistinction to the other, which would be as applicable to the time of Galen as to that of Epiphanius, and *vice versa.*

*Scheme of the Attic Solar Calendar in the time both of Galen and of Epiphanius.*

| Month. | Days. | Julian. | Month. | Days. | Julian. |
|---|---|---|---|---|---|
| i. | 30 | Sept. 3 | vii. | 30 | March 2 |
| ii. | 30 | Oct. 3 | viii. | 30 | April 1 |
| iii. | 30 | Nov. 2 | ix. | 30 | May 1 |
| iv. | 30 | Dec. 2 | x. | 30 | — 31 |
| v. | 30 | Jan. 1 | xi. | 30 | June 30 |
| vi. | 30 | — 31 | xii. | 30 | July 30 |

Epagomenæ August 29.

Such is the Type of the calendar in question in its most abstract form, (that is, in the absolute order and length, and the Julian epochs, of its different months,) as it may be conceived to have stood in the time of each of our authorities. Of the relative order and of the proper names of these different months, we assume nothing to be known as yet, or no more than appears to involve a contradiction; viz. that what was the eleventh month in this calendar in the time of Galen, was the third in that of Epiphanius, and *vice versa.* And yet even this may be no contradiction; if it was a possible contingency that between the time of Galen and that of Epiphanius the order of this calendar in general, or that of some of its months in particular, might have undergone a change. But this is a question which has still to be considered.

## SECTION V.—*On the change in the beginning of the Attic year, sometime made from Hecatombæon to Boëdromion.*

The history of the Attic calendar has brought to light the fact of *one* change, in the beginning of the Attic year, from the month Gamelion to the month Hecatombæon; and chronologers have long seen reason to conclude that another must sometime or other have been made, by virtue of which the beginning of the year was transferred from Hecatombæon to Boëdromion. An inscription is in existence[q], in which the Gymnasiarchæ are enumerated month by month, in the order of service; and this enumeration begins in Boëdromion, and ends in Metageitnion. Another is extant[r], which, though not so complete as the preceding, implies the same thing of the beginning of the year: and both these are later than the time of the Roman emperor Adrian. There is a third[s], from which also it may be inferred, that Metageitnion was now the last month in the official year. The testimony of these several inscriptions is to one and the same effect; viz. that either in the reign of Adrian, or sometime after it, the beginning of the official year at Athens must have been changed; and Boëdromion, before the third month, must have become the first.

The same kind of proof also is extant, that some visit of Adrian's to Athens, or some occasion of his residence there, was made the epoch of an æra among the Athenians: that is, an inscription is in existence[t], dated Εἰκοστοῦ ἑβδόμου ἔτους ἀπὸ τῆς θεοῦ Ἀδριανοῦ πρώτης εἰς Ἀθήνας ἐπιδημίας: and as he is there styled Θεὸς, or Divus, he must have been then dead: and the date of the inscription, and consequently the epoch of the æra, might have gone as far back as the 27th year before the date of his death, July 10, A. D. 138. And on that principle, it would go back to A. D. 112: a year actually specified by Phlegon[v], U. C. 865, Imperatore Nerva Trajano vi. and T. Sextio Africano Coss., as that when Adrian, though still a private individual, was serving the office of archon at Athens.

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[q] Corpus Inscript. No. 270.

[r] No. 276. cf. 2309.

[s] No. 108.

[t] No. 281.

[v] De Mirabilibus, xxv. 93.

Corsini was of opinion that the date of this inscription was to be referred to this epoch [x]. We have appealed to it ourselves, in the present instance, merely as an argument of the general proposition, that the visits of Adrian to the city of Athens had permanent consequences on the reckoning of time there; though we cannot but think it more probable that the Athenians would select, as the epoch of an æra so dated, some occasion when he was residing among them, not as a private person, but in capacity of emperor.

It appears moreover from Spartian's life of this emperor [y], that he enlarged and beautified Athens [z], and gave a part of it a new name, taken from his own, Adrianopolis: and an inscription is still in being which recognises him as the second founder of Athens [a]—

*Αἵδ' εἰσ' Ἀθῆναι Θησέως ἡ πρὶν πόλις.*
*αἵδ' εἰσ' Ἀδριανοῦ κοὐχὶ Θησέως πόλις.*—

It is known too that he was sometime or other initiated in the mysteries after he became emperor; and the epitaph of the priestess who initiated him is still extant [b]; and the circumstance insisted upon, as most to her credit, is not that she had performed that office for the Dioscuri, or Æsculapius, or Hercules, or any other of the worthies of antiquity, but for Adrian. It is also on record that, at the petition of the Athenians themselves, he gave them a new code of laws, or compiled one from the old laws of Draco and Solon, with additions or changes of his own *; and that he condescended to serve the office of archon among them even after he became emperor, and to preside at the Dionysia, and other ceremonies, which belonged to the jurisdiction of the archon: and that the Athenians sometime or other in his reign, out of compliment to him, created a new tribe, which they called Ἀδριανὶς[c].

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* To one of these laws of his, Pollux appears to refer, vi. vii. § 35. p. 584. l. 2, under the title of the *νόμος τοῦ βασιλέως*: Καὶ *ἀρχεῖόν τι* Ἀθή*νησι παρασίτιον καλούμενον, ὡς ἐν τῷ νόμῳ τοῦ βασιλέως ἐστὶν εὑρεῖν.*

[x] F. A. iv. 173–175.

[y] Cap. 20.

[z] Cf. Pausanias, i. xviii. 6–9.

[a] Corpus Inscript. 520. cf. Gruter. cclxxvii. 4. Also, Scholia in Aristidem, xiii. iii. 201. 31: 149. 8. *Μείζων γενομένη... Διὸ καὶ ὁ Ἀδριανὸς ἐλθὼν καὶ μείζονα ποιήσας τὸν περίβολον, ἔνθα μὲν ἦν πρὸ τείχους τὸ πεζὸν* (aliter, *παλαιὸν*) *ἔγραψε· Τοῦτο ὁ Θησεὺς ἔκτισε, καὶ οὐκ Ἀδριανός· ἔνθα δὲ αὐτὸς ἔκτισεν ἔγραψεν· Τοῦτο Ἀδριανὸς καὶ οὐ Θησεὺς ᾠκοδόμησεν.* Cf. also Scaliger, De Emendatione, v. 481: also Steph. Byz. *Ὀλυμπίειον.*

[b] Ibid. 434.

These different facts laid together contribute materially to strengthen the probability of the opinion of Corsini[d], that at some period or other in the reign of Adrian, distinguished by these coincidences, the Athenians made a change in the beginning of their official year; and so far in the relative, if not the absolute, order of the months of their calendar. The only question can be about the time. Corsini has laboured to prove that both the archonship of Adrian and his initiation, and his dedication of the Olympiëum, and the celebration of the Dionysia under his auspices, as archon eponymus, were events of Olymp. ccxxvii. 3, A. D. 131 or 132, before his visit to Egypt by way of Judæa[e]. But though these are confessedly difficult questions, both because of the obscurity which hangs over the movements of Adrian for the greater part of his reign, and because of the contrariety of testimony itself, we have seen reason to come to a different conclusion; and to date his legislation for the Athenians, A. D. 125 and 126, and his residence at Athens, in quality of archon, when he dedicated the Olympiëum and celebrated the Dionysia, A.D. 127 and 128, *after* not *before* his first visit to Egypt. The reasons on which we have come to this conclusion, will best be explained in the note subjoined*: the use which we may make of the conclusion, in illustration of the present subject, which is that of the epoch of the Attic solar or Julian calendar, is very important, and well calculated, by the service which it renders in that respect, to confirm the conclusion itself.

* The movements of Adrian from the first to the fourth year of his reign, A.D. 117, to A. D. 120, were considered in our Fasti Catholici[1], in illustration of the Apis Cycle of the Egyptians; and we may assume it as proved to a demonstration, by the testimony of that cycle, that the disturbances in Egypt, arising out of the appearance of the Apis, which, ac-

cording to Spartian[2], coincided with Adrian's visit to Gaul from Britain, happened at the end of A. D. 120.

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[c] Cf. vol. i. 85. note. [d] Fasti Att. iv. 174.
[e] Tom. ii. Pars i. Diss. x. 16. 105–114.

[1] Vol. ii. 596. Diss. xiii. ch. vi. xiv. xi.

This then must have been the date of the visit to Gaul; the latter end of A. D. 120. Assuming it consequently as our point of departure, we must endeavour, in prosecution of the same subject, to investigate, and if possible reduce to their proper chronological order, the movements of Adrian from that time forward. And with that purpose in view, it is desirable perhaps that we should still follow in the first instance the narrative of Spartian; calling in any other sources of information on the same subject, which may be accessible, to compare with his statements, and, if necessary, to qualify and correct them by their means. After this visit to Gaul then, A. D. 120 *exeunte*, Spartian continued[3]: Post hæc Hispanias petit; et Tarracone hyemavit: and this must have been the winter of A. D. 121. He then proceeds[3]: Bellum Parthorum per idem tempus in motu tantum fuit, idque Adriani colloquio repressum est: and this, if true, would imply that he must have travelled previously from Spain, where he was, to the borders of the empire in the east; Syria and the Euphrates, at least: which would necessarily have taken up the rest of A. D. 121. Spartian next observes[4]: Post hoc per Asiam et insulas ad Achaiam navigavit, et Eleusinia sacra . . . suscepit; multa in Athenienses contulit; et pro agonotheta resedit. Nor can it be denied that this representation of the course of things would be consistent with itself; and if Adrian had been to the Euphrates in the summer of A. D. 121, he might have been returning, and by way of Athens, in the autumn of the same year; and might have been at Athens, in the winter of this year, and in the spring of A. D. 122. Nor can it be denied that at this point too of his reign, Ol. ccxxv. 2, Eusebius also has a visit of his to Athens[5]; which would so far appear to confirm Spartian. Notwithstanding this, we are of opinion that in this part of his narrative (i. e. in what concerns this visit to Upper Asia first, and the visit to Greece after that), Spartian has anticipated the true course of events; as may better appear by and by.

He continues[6]: Post in Siciliam navigavit—Inde Romam venit; atque ex ea in Africam transiit. This visit to Africa must have been made in the autumn of some year; just before the setting in of the rainy season: because, as appears from a subsequent allusion to it[7], that season set in synchronously with this arrival in Africa: and we may very probably conclude that the year of the visit itself, distinguished by this coincidence, was the fifth of his reign; since it is added on the same occasion, that it was the first rain which had fallen in Africa *post quinquennium:* Quando in Africam venit, ad adventum ejus post quinquennium pluit. The fifth year of his reign would begin Aug. 11, A. D. 121, and he was probably in Africa, in the October or November of the same year. Eusebius, ad Ann.

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[2] Vita. 12.

[3] Cap. 12.

[4] Cap. 13.

[5] Chronicon Arm. Lat. ii. 283: ad Ann. 2137, Olymp. ccxxv. 2. cf. Jerome, in Chronico, also, the same year: Hadriani 6.

[6] Vita, 13.

[7] Cap. 22.

Abrah. 2136, Ol. ccxxv. 1. A. D. 121[8], also mentions the fact of colonies composed of Jews, settled in Africa, by him, in that very year; which would imply his own presence there the same year.

We may conclude then that the true order and course of his journeys, as far as we have yet considered them, was this—i. A visit to Gaul from Britain, at the latter end of A.D. 120: ii. A visit to Spain in the winter, A.D. 121: iii. A visit to Sicily and then to Rome, in the spring and the summer, the same year: and ivth, a visit to Africa, in the autumn: but no visit as yet to Upper Asia again, since his accession to the throne; nor any visit to Greece.

Spartian continues[9]: Denique quum post Africam Romam redisset, statim ad orientem profectus per Athenas iter fecit, atque opera quæ apud Athenas cœperat dedicavit; ut Jovis Olympii ædem, et aram sibi: eodemque modo per Asiam iter faciens, templa sui nominis consecravit. These representations of the course of his subsequent proceedings are certainly consistent with the account before given of his former ones: but this will prove only that, if there was any anachronism in the former part of the narrative, it pervades this latter part also. Let us therefore stop here to compare the accounts of Eusebius, Syncellus, Prosper, Cassiodorus, and any others, with these of Spartian.

With respect to Adrian's visits to Athens, Eusebius has the following statements[10].

Ad Annum Abrah. 2137, Ol. ccxxv. 2, Hadriani 5: Hadrianus Atheniensibus eum precantibus leges ex Draconis et Solonis reliquorumque (scriptis) composuit[11]—Cephisus fluvius Eleusinam oppressit (inundavit) cuique pontem Hadrianus conjunxit, et Athenis quidem hibernavit[12].

Ad Annum Abrah. 2140, Ol. ccxxvi. 1, Hadriani 8: Hadrianus Eleusinas res calluit, multaque (dona) Atheniensium urbi largitus est[13]: and the same year, and on the same occasion, he dates the presentation to him while at Athens of the Apologies of Quadratus and Aristides[14], which we know took place at Athens[15], and when Adrian was attending the mysteries. And with these statements we may compare Syncellus',[16] in reference to the same things: Ὁ *αὐτὸς* (Ἀ*δριανὸς*) Ἀ*θηναίοις ἀξιώσασιν ἐκ τῶν Δράκοντος καὶ Σόλωνος νόμους ἐπισυνέταξε, χειμάσας εἰς* Ἀ*θήνας καὶ μυηθεὶς τὰ* Ἐ*λευσίνια, καὶ γεφυρώσας* Ἐ*λευσῖνα, κατακλυσθεῖσαν ὑπὸ* Κ*ηφισοῦ ποταμοῦ*: and according to Syncellus also, either after, or at least not before, the presentation to him of the Apology of Quadratus[17].

These two events then, which Eusebius distinguishes asunder, Adrian's giving the Athenians a code of laws, and his being initiated, and making a bridge over the Cephisus, would so far appear to have belonged to one and the same occasion, either A. D. 121 and 122, or A. D. 125 and 126.

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[8] Chron. Arm. Lat. ii. 283. cf. Jerome, in Anno also.

[9] Cap. 13.

[10] Chron. Arm. Lat. ii. 283–285.

[11] Cf. Jerome in Chron. Ol. ccxxv. 2. Hadr. 6.

[12] Cf. Jerome, Ol. ccxxv. 3. Hadr. 7.

[13] Cf. Jerome, Ol. ccxxvi. 1. Hadriani 9.

[14] Cf. Jerome also, In Anno: and De SS. Ecclesiasticis, 19.

[15] Cf. our Dissertations, iv. p. 111. Append. Diss. xviii

[16] 659. 9.

[17] 658. 6–19.

To decide between these years, let us consider first the statement which occurs in the Chronicon of Cassiodorus, with reference to the first of these events—A.D. 126: Verus et Ambiguus: His. Coss. Atheniensibus leges petentibus Hadrianus ex Draconis et Solonis reliquorumque libris jura composuit: secondly, with reference to the second—A.D. 127: Gallicanus et Titianus: His. Coss. juxta Eleusinam civitatem in Cephiso fluvio Hadrianus pontem constravit. And with Cassiodorus' let us also compare Prosper's [18]—A.D. 125: Asiaticus et Quintillus: Cephissus fluvius Eleusinem inundavit, quem Hadrianus ponte conjungens Athenis hyemem exegit *.

All these statements evidently relate to the same occasion; and we may collect from them, taken together, that Adrian's giving a constitution to the Athenians, and his wintering at Athens, and his building a bridge over the Cephisus, and his being initiated, were events of one and the same visit, the true date of which, in all probability, was the ninth year of his reign, A.D. 125–126. The swelling of the Cephisus, and the inundation of Eleusis produced by it, which are represented as the occasion of the construction of the bridge, are critical circumstances with respect to the time of the year. The rivers of Attica were little better than brooks in the summer season, and torrents only in the winter. An epigram is still extant, ascribed to Simonides, which records the construction of a bridge, similarly produced, in his time, yet in the winter.

*ὦ ἴτε Δήμητρος πρὸς ἀνάκτορον, ὦ ἴτε μύσται,*
*μηδ' ὕδατος προχοὰς δείδιτε χειμερίους.*
*τοῖον Ξεινοκλῆς γὰρ ὁ Λίνδιος ἀσφαλὲς ὔμμιν*
*ζεῦγμα διὰ πλατέος τοῦδ' ἔβαλεν ποταμοῦ* [19].

This circumstance then, in our opinion, is demonstrative that Adrian must have been at Athens on this occasion during the rainy season, January and February; and that the mysteries at which he was initiated, on the same occasion, must have been the lesser, celebrated in Anthesterion; which A.D. 125–126, as our calendar shews, bore date February 20. We may conclude then that he came to Athens A.D. 125, too late for the greater mysteries, which would begin October 9; or that, if he was even there before that date, he did not choose to be initiated in them, without having first passed through the lesser, because it would have been contrary to rule, and the regular course of proceeding: and while he was still there, from the autumn of A.D. 125, to the spring of A.D. 126, he both gave the Athenians a new code of laws, and built the bridge over the Cephisus, and began other public works in, or upon, Athens; especially the completion of the Olympiëum, of which more will be said by and by.

The date then of Adrian's first visit to Athens, we may presume, was the autumn of A. D. 125. Nor is it unlikely that this was the time when Plutarch was appointed governor of Greece[20]. It must have been this visit too, and the initiation which now took place, to which Dio or Xiphilinus alluded[21]; though from the use of the term *ἐποπτεύειν*, in reference to it, these lesser mysteries must have been mistaken for the greater, to which only that term was properly applicable[22]. But this occasion could have been only that of the lesser mysteries; and testimony is express that Adrian was twice initiated; and if so, first in the lesser and then in the greater. It was usual also to wait a year between the two initiations[22]: and if Adrian was initiated in the lesser, on this occasion, A.D. 126, and in the greater at his next visit, A. D. 127, he too must have complied with the usual rule.

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[18] Opera, 709 E.

[19] Poetæ Min. lix. cf. Anthologia, i. 70: Simonides, lvi.

* The terms of these entries indeed shew that they were taken from the Chronicon of Jerome. But the years to which they are assigned are not the same with those in Jerome.

We have thus accounted for the movements of Adrian from A. D. 117 to 122; and from the middle of A. D. 125 to the beginning of A. D. 126. The intermediate time is not accounted for, but it does not materially concern our purpose that it should be; and probably that visit to the Euphrates, to which Spartian alluded, as made in consequence of the apprehension of a Parthian war, took up some part of this interval. Let us continue then our review of these movements according to Spartian, as before, from A. D. 126.

It may be inferred from him first[23], that, when Adrian resumed his progress to the east, he visited Antioch, and went to the top of Mount Cassius there[23]. And from the storm which it is said he encountered at sunrise, we may probably infer the time of the year was early in the spring. Peragrata Arabia, continues Spartian, Pelusium venit, et Pompeii tumulum magnificentius extruxit: which brings him to Egypt, it may be presumed, early in the summer, A. D. 126.

The date of this visit to Egypt was particularly considered in our Dissertations, because of its connection with the chronology of the second Jewish war[24]; and it was there proved, from the testimony of the coins of Adrian, that he must not only have been in Egypt, but also have visited almost every part of it, in the eleventh year of his reign—reckoned according to the Egyptian computation, from the first of Thoth, Nabon. 874, July 23, A. D. 126, to the first of Thoth, Nabon. 875, July 23, A.D. 127. This agrees exactly with the time at which we have seen reason to date his arrival. His presence at Alexandria, on some occasion, is alluded to obiter in Spartian[25]. It is well known too that one incident of this visit was the death of Antinous, which Spartian also tells us took place, Dum per Nilum navigat[26]. And it is observable that Eusebius dates this, Ad Ann. Abrah. 2143. Olymp. ccxxvi. 4. in the eleventh or twelfth of Adrian; and Jerome, Olymp. ccxxvii. 1. in his twelfth or thirteenth: from which we may infer that it really happened about this time, A. D. 126 or A. D. 127. And here the Paschal Chronicon supplies an important fact; viz., that the city which Adrian caused to be built in the Thebaid, in honour of Antinous, and in consequence of his death, was founded *Πρὸ γ′ καλανδῶν Νοεμβρίου*[27], i.e. October 30, Roman, in some year; which, if we are right in our conclusions hitherto, must have been this of A. D. 126, though the Chronicon dates it Ol. ccxxv. 2. consulibus Aviola et Pansa—which are notes and characters of A. D. 122, U.C. 875: in which year it is certain that Adrian could not yet have been in Egypt *.

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[20] Cf. supra, page 128 note.

[21] lxix. 11. cf. also, 12, 13—all which shews that, even in Xiphilinus, it was just before the visit to Egypt, the death of Antinous, and the rebellion of the Jews—and if so, A. D. 126. cf. also Spartian, Vita, 12–14.

[22] Cf. Plutarch, Demetrius, xxvi.

[23] Vita, 14.

[24] Vol. iv. 105–110. Appendix, Diss. xviii.

[25] Vita, 20.

[26] Vita, 14.

It will follow from this fact, that Adrian must have been in Egypt from the summer of A. D. 126 as late as October 30 the same year at least; and that being the case, it is very allowable to suppose that he might have continued there until the spring of A. D. 127. And here the history of the Jewish war would come in to confirm our conclusions; the date of the revolt which led to it having been A. D. 127, immediately after Adrian's visit to Egypt. But this has been so circumstantially considered in our Dissertations, that we have nothing to do at present, except to refer our readers to that work[28]. Spartian's allusion to this rebellion[29], and Xiphilinus' also[30], relatively to the true chronology of Adrian's reign, are generally correct; both dating it about the time of the visit to Athens, A. D. 125–126, on which it was really consecutive, with only one year's interval between them.

With respect to the second initiation, though it is not mentioned in Spartian or Xiphilinus, Eusebius has this statement, Ad Ann. Abrah. 2145, Ol. ccxxvii. 2, Hadriani 13: Hadrianus Athenis hiemavit, et Eleusinas res invisit, quibus etiam multa (loca) construxit, et agonem edidit bibliothecasque fecit[31]: and Syncellus has a similar one[32]: *Ἀδριανὸς παραχειμάζων ἐν Ἀθήναις μυεῖται τὰ Ἐλευσίνια. ἔνθα καὶ ἦξεν ἀγῶνα, ἐπισκευάσας πολλὰ τῷ τόπῳ, καὶ βιβλοθήκας συστησάμενος*: and in like manner, his presiding at Athens in quality of agonotheta, is asserted by Spartian also[33], though on the occasion of his first visit; and the dedication of sundry public works, supposed to have been begun at this first visit, especially that of the Olympiëum, is asserted of the second[33].

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[27] 475. 2. cf Xiphilinus, lxix. 11.

[28] Vol. iv. Appendix, Diss. xviii. page 98–104: 113–116.

[29] Vita, 14.

[30] lxix. 12–14.

[31] Cf. Jerome, Ol. ccxxvii. 3, Hadriani 15, and Ol. ccxxvii. 4, Hadriani 16. cf. also Cassiodori Chron. Pompeiano ii. et Commodo, A. D. 136.

[32] 660. 12.

* This incident of the death of Antinous, as a circumstance of this first visit of Adrian's to Egypt, was considered in our Fasti Catholici also, because of its probable connection with the institution of the Roman Pelosia, which appears to have ultimately arisen out of it. See our Fasti Catholici, iv. 409. 435, 436. It makes no difference to the conclusion there attempted to be established, whether the actual date of this institution was that of this first visit, A.D. 126–127, or that of the next, A. D. 130–131—provided only the 20th of March Roman, at the time, and the 2nd of Pachon Egyptian, were coincident. We should be of opinion that the foundation of Antinoöpolis, in honour of Antinous, was begun when Adrian was in Egypt on this first occasion, A. D. 126–127, and the city was dedicated when he was there again, A. D. 130, and the Pelosia were instituted March 20, A. D. 131. Cf. Vopiscus' Life of Saturninus, 1: the letter of Adrian's to Servianus, there quoted, which seems to confirm this opinion.

Now his presiding as agonotheta implies that he was holding an office of some kind at the time; and one which had to do with the superintendence and celebration of *σκηνικοὶ ἀγῶνες*, in contradistinction to *γυμνικοὶ*—the presidents at which were called *ἀθλοθέται*, not *ἀγωνοθέται*[34]. A duty of that kind belonged to the office of the *ἄρχων ἐπώνυμος* at Athens; the duty of presiding at the Dionysia *ἐν ἄστει*—an *ἀγὼν σκηνικὸς* properly so called[35]: and we are told by Spartian[36], that Adrian was some time archon at Athens, and as his context implies, not on the occasion recorded by Phlegon, A. D. 112, when he was still a private person, but when he was emperor: In Hetruria præturam Imperator egit: per Latina oppida Dictator, et Ædilis, et Duumvir[37] fuit: apud Neapolim Demarchus: in patria sua Quinquennalis: et item Adriæ Quinquennalis, quasi in alia patria: et Athenis Archon fuit. And here Xiphilinus, the abbreviator of Dio, comes in to confirm this inference, by informing us that on some occasion, later than the commencement of the Jewish war at least, Adrian both completed (i. e. dedicated) the Olympiëum at Athens, and presided at the Dionysia, *τὴν μεγίστην παρ' αὐτοῖς ἀρχὴν ἄρξας*[38]—i. e. in quality of *ἄρχων ἐπώνυμος*.

The question then can be only about the year. The history of his movements hitherto has proved that it could not have been earlier than A. D. 127. But there is no reason why it should not be supposed to have been A. D. 127–128; why Adrian should not be supposed to have arrived a second time at Athens, after his visit to Antioch, Egypt, and other parts of the East, A. D. 126–127—in the summer of this very year, A. D. 127—later indeed than the first of Hecatombæon that year, July 7, but not later than the first of Boëdromion, September 4: in time consequently to complete the ceremony of his initiation, by his admission to the greater mysteries, and time enough also to serve the office of archon eponymus, if he was inclined to do so—only as bearing date from Boëdromion 1, Sept. 4 this year, not from Hecatombæon 1, July 7. And here the Attic Solar and Julian calendar, which we have seen took its rise both in this year, A. D. 127, and on this day in that year, Boëdromion 1, Sept. 4, and in commemoration of this act of condescension on the part of the Roman emperor for the time being, his consenting to serve the office of *ἄρχων ἐπώνυμος* of the year so dated, interposes its testimony, to confirm and authenticate all these conclusions by a kind of evidence which ought to be considered decisive and final.

They admit however of being further illustrated by the fact of the completion and dedication of the Olympiëum, or temple of Jupiter Olympius, which almost all our authorities agree in connecting with the occasion of this second visit of Adrian. The history of this temple is singular; as that of a building which was first projected and begun at a very remote date before this time, and was often resumed, and as often abandoned, and left incomplete, until the finishing hand was put to it in the reign of Adrian. Ὀλύμπιον· τοῦτο ἀτελὲς ἔμεινεν Ἀθήνησιν οἰκοδομούμενον, πολλάκις ἀρχὰς λαβὸν τῆς κατασκευῆς[39]—Ὀλύμπιον ἡμιτελὲς μὲν, κατάπληξιν δ' ἔχον τὴν τῆς οἰκοδομίας ὑπογραφήν· γενόμενον δ' ἂν βέλτιστον εἴπερ συνετελέσθη[40]. It would appear from Aristotle that it was begun originally by the Pisistratidæ[41]: Καὶ τοῦ Ὀλυμπίου ἡ οἰκοδόμησις ὑπὸ τῶν Πεισιστρατιδῶν: from Vitruvius, that the actual projector of it was Pisistratus[42]: Namque Athenis Antistates et Callæschros et Antimachides et Porinos architecti Pisistrato, ædem Jovi Olympio facienti, fundamenta constituerunt. post mortem autem ejus propter interpellationem reipublicæ incepta reliquerunt. itaque circiter annis quadringentis post Antiochus rex cum in id opus impensam esset pollicitus . . . magna solertia scientiaque summa civis Romanus Cossutius[43] nobiliter est architectatus. The Antiochus here meant was Epiphanes; of whom Livy records his undertaking to finish the temple in question, when he came to the throne, A. D. 176 or 175[44]. And it must be presumed, from the preceding testimony of Vitruvius, that he finished it according to his undertaking, in some sense or other; and Vitruvius himself refers to a part of the temple, which he calls the octastylus[45], as a specimen of the style which he terms Hypæthros, or Sub Dio, the open-roofed one. Yet Suetonius tells us, in his life of Augustus[46], that the kings his allies and friends, out of compliment to him, projected the completion of the Olympiëum, as a temple to his Genius. Reges amici atque socii et singuli in suo quisque regno Cæsareas urbes condiderunt, et cuncti simul ædem Jovis Olympici Athenis antiquitus inchoatam perficere communi sumptu destinaverunt, Genioque ejus dedicare. And such must have been notoriously the state in which it was still left even after this time, if Lucian could put this inquiry into the mouth of Jupiter, among other messages which he was sending the Athenians by Menippus—Εἰ τὸ Ὀλύμπιον αὐτῶν ἐπιτελέσαι διανοοῦνται[47]. Its completion, in fact, as commemorated by the institution of games called Ὀλύμπια, and ever after celebrated at Athens, was certainly an event of the reign of Adrian[48].

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[33] Vita, 13.

[34] Suidas in *ἀγωνοθέτης*.

[35] Cf. a case in point, Vol. i. page 194. (B. C. 468.)

[36] Vita, 19.

[37] Cf. Muratorius DCXIV. 2; an inscription which records his Duumviratus at Tibur.

[38] lxix. 12–14: 16.

Now Philostratus has a statement which may help us to determine the date of this completion[49]: Τὸ δὲ Ἀθήνησιν Ὀλύμπιον, δι' ἑξήκοντα καὶ πεντακοσίων ἐτῶν ἀποτελεσθὲν, καθιερώσας ὁ αὐτοκράτωρ, ὡς χρόνου μέγα ἀγώ-

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[39] Hesychius in voce

[40] Geographi Minores, ii. Dicæarchus, De Statu Græciæ, p. 8. De Athenis.

[41] Politica, v. 11. 156. 20.

[42] vii. Præf. 195.

[43] Cf. p. 196.

[44] xli. 20. cf. Vell. Paterc. i. 10: and Strabo, ix. i. 241 a: also the lately recovered fragments of Granius Licinianus, at the end.

[45] iii. i. 87.

[46] lx. cf. Pliny, H. N. xxxvi. 5. p. 640; Sic est *inchoatum* Athenis templum Jovis Olympii: *inchoatum* only, even in his time, not completed.

[47] ii. 780 Icaro-Menippus, 24. 18. cf. our Dissertations, iv. iii. 112. note.

[48] Corpus Inscript. No. 342. cf. Corsini, Dissert. Agonisticæ, i. cap. 14. p. 23. and Pausanias, i. xviii. 6. 9.

[49] Vitæ Soph. i. 532. C. Polemo.

*νισμα, ἐκέλευσε καὶ τὸν Πολέμωνα ἐφυμνῆσαι τῇ θυσίᾳ κ᾽, τ. λ.* Let this date be referred to A. D. 128, when Adrian was presiding at the Dionysia: and it will give either the first commencement, or the first suspension, of the work, B. C. 433 or 432: immediately after the completion of the Propylæa at Athens, which took up five years *, from B. C. 437—B. C. 432 [50]. This work was probably begun as soon as the Propylæa were completed; and interrupted by the Peloponnesian war, which broke out only the next year †: and no attempt having been seriously made to resume and finish it, on the part of the Athenians or any others, from that time until this in the reign of Adrian, that would be a sufficient reason for the assertion of Philostratus, that it had been completed 560 years after it was begun. This date then confirms the conclusion otherwise obtained of the time of this second visit of Adrian's to Athens. Polemo was selected to speak the oration on this occasion; no doubt because of his celebrity at the time: and Eusebius also dates *his* acme only three years later [51]; as well as Favorinus', who was his contemporary.

The movements of Adrian for the rest of his reign do not concern our present purpose. We shewed in our Dissertations [52], there was reason to conclude he must again have been in Egypt, in the 15th year of his reign, A. D. 131, the most critical period of the Jewish war: and this Spartian so far confirms, as to date the beginning of his last sickness after his circuits of the empire were over, on the one hand, yet about the time of the adoption of Verus and the death of Severianus, on the other: Peragratis sane omnibus partibus capite nudo, et in summis plerumque imbribus atque frigoribus, in morbum incidit [53]. Severianus, or Servianus, was living and consul A D. 134. As to the adoption of Verus, (Cejonius Commodus Verus,) he died on the kalends of January A. D. 138 [54], the year after his second consulship, A. D. 137: and Antoninus Pius was adopted

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* Harpocration, *προπύλαια*, on the authority of Philochorus, dates the commencement of this work Ἐπ᾽ Εὐθυμένους, a name which occurs as a various reading of the name of the archon of B. C. 426, Εὔθυνος. The Tables however have Εὐθυμένης B. C. 437, which corrected = B. C. 436. In the length of time taken up by it he is confirmed by Plutarch, Pericles, xiii: and that it had been already finished before the war broke out may be inferred from Thucyd. ii. 13. Five years current from the beginning of B. C. 436 need not come lower down than some little after the beginning of B. C. 432; which would allow time for the beginning even of the Olympiëum also before the war broke out.

† The anecdote related by Valerius Maximus, of Pericles and Alkibiades, iii. 1. De Indole, Externa, § 1, is an argument, if true, that any public work, begun after the Propylæa, must have been broken off by the war: At illo dicente, mandato se civitatis Propylæa Minervæ, quæ sunt januæ arcis, ædificasse, consumptaque in id opus ingenti pecunia non invenire quo pacto ministerii rationem redderet . . . Ergo inquit quære potius quemadmodum rationem non reddas. Cf. Plutarch, Alkibiades, vii.

[50] Cf. our Dissertations, iv. 112: Harpocration, *προπύλαια*: Photius and Suidas, *προπύλαια*: Dio Chrys. ii. 85. 10. Ἢ *τὰ προπύλαια τῆς ἀκροπόλεως, καὶ τὸ Ὀλύμπιον, ἀπὸ πλειόνων ἢ μυρίων ταλάντων.*

[51] Chron. Arm. Lat. ii. 285, ad Ann. 2148, Olymp. ccxxviii. 1, Hadriani 16.

[52] iv. 109–116.

[53] Vita, 23. cf. 15: Xiphilinus, lxix. 17.

[54] Adrian, 23. cf. Verus, 4.

## SECTION VI.—*On the Julian epoch of the Attic Solar Calendar.*

If the idea which we have conceived of the Attic Solar calendar, in its most abstract and general form, in the time of Galen and Epiphanius, is agreeable to the matter of fact, then one of the most obvious and yet most remarkable circumstances about it is this; That it must have had a much closer resemblance to the Alexandrine than to the Roman form of the Julian year: and consequently must have proposed as its model the Alexandrine, not the Julian, Correction. Another is that, if Adrian was at Athens, A.D. 127–128, he must have come thither from Egypt; as we have shewn from the account of his movements previously down to that period in his reign: and this year, A. D. 127, was the first year of the cycle of leap year proper to the Alexandrine Correction—the 39th from the epoch, B. C. 26[f]. It is self-evident that a Julian calendar, formed on the model of the Alexandrine, could take its rise in no year so properly as the first year of the Alexandrine Cycle of leap year.

Let us then see what was the state of the Metonic calendar A. D. 127—as before in use, and without any change,

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in his stead, Feb. 25, the same year[55]. After his adoption he was made prætor; then Pannoniæ impositus: both before his *second* consulship. Verus consequently must have been adopted the year before his first consulship, A. D. 135: and Adrian had returned to Rome by the iii non. Maias, Tribun. Pot. 18, U. C. 887, A. D. 134, as is proved by an extant Inscription[56]. Nor do we know that he was in Egypt on the second occasion later than A. D. 131[57]. A letter of his to Severianus, or Servianus, (consul at the time, consequently, A. D. 134,) has been preserved by Vopiscus[58], from Phlegon; which though quoted merely to illustrate his opinion of the Egyptians, yet bears on this question, by implying that the adoption of Verus followed soon on his departure from Egypt, on some occasion not long before, which must have been this of his departure after his second visit, A. D. 130 or 131: Denique ut primum inde (i. e. Alexandria) discessi, et in filium meum Verum multa dixerunt, et de Antonino (Antinöo) quæ dixerunt comperisse te credo.

[f] Vide our Fasti Catholici, iv. 468 sqq.

[55] Anton. Pius, 4: Adrian, 24: Antoninus Phil. 5: Xiphilinus, lxix. 20, 21.

[56] Corpus Inscr. 5906.

[57] Cf. our Dissertations, loco citato.

[58] Saturninus, 1.

until then. This year answered to Period viii. 27, Cycle xxx. 8[ff]. The increment of the epoch, at that time, amounted to seven days complete: i. e. the calendar dates were now seven days in advance of the moon. The original date of Boëdromion in the eighth year of the second cycle was August 28: and now it was September 4. If then a solar calendar, purposely assimilated to the Alexandrine, came into being on the first of Boëdromion, Cycle xxx. 8, A. D. 127, it would take its rise in the first year of the proper Alexandrine Cycle of leap year; and its proper Julian epoch in the first year would be September 4, and in the other three years, September 3, perpetually: just as that of the Alexandrine itself in the former was August 30, and in the latter August 29.

We want nothing therefore, *a priori*, to account for the rise of an Attic Solar calendar, intended to resemble the Alexandrine, in this year, A. D. 127, and on this day, September 4, except some special reason both for fixing upon this year as the date of such a change in the calendar, and also on the Alexandrine, in preference to the proper Roman, form of a Julian correction of its kind. This reason for the choice of the year is probably supplied by the presence of Adrian at Athens; not only not long after he had given the Athenians a new body of laws, but probably also just before his initiation in the greater mysteries, and before he entered on the office of Archon *Eponymus:* and these two reasons might conspire to fix the epoch of the change to the first of Boëdromion the same year.

And with respect to the kind of solar or Julian year, which it might have been proposed to adopt at this time; the Egyptian, in the sense of the Alexandrine, might be preferred to the Roman, either out of compliment to the emperor himself, who was known to have great respect for the learning and antiquity of the Egyptians, and came to Athens on this occasion directly from Egypt; or because it was more agreeable *a priori* to the nature and constitution of the preexisting lunar year of the Athenians to pass into the Alexandrine, than into the Roman, form of the Julian year; every month in the old Attic lunar calendar having been nominally a month of 30 days, and every month in the Alexandrine solar calendar being both nominally and really a month of 30 days also. Add to this, that the proper Roman or Julian rule of the reckoning of the noctidiurnal cycle, from midnight to midnight, was still unknown and unexampled among the Greeks; but the Egyptian or Alexandrine, of reckoning it from sunset to sunset, had always been that of the Greeks, and especially of the Athenians. Something too may possibly be allowed to the secret belief of the Athenians, founded upon an ancient and hereditary tradition, that they themselves were a colony from Saïs in Egypt; of which tradition, and the popular persuasion founded upon it, we shall have more to say, if we come to treat of the Athenaïc or Panathenaïc institution of the first of the Attic kings, Erechtheus or Erichthonius.

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[ff] See No. xc. p. 129 supra: and Vol. iii. Appendix, Table vii.

It appears to us that, in these reasons and these coincidences, we have all the explanation which at this distance of time can be expected of a phenomenon which must sometime or other have been a matter of fact; the rise of an Attic solar calendar, modelled on the plan of the Alexandrine correction, in the first year of the Alexandrine cycle of leap-year, and within five days of the epoch of the Alexandrine correction itself, Sept. 4, A. D. 127. This conclusion is very important to the history of the Metonic correction, from its proper epoch, B. C. 432, down to this point of time; and especially to the proof of the Proposition which we professed to have in view through the whole of the preceding chapter: viz. that after the Metonic correction had once been received into use at Athens, it continued in use there, as low down as we have the means of tracing it, without undergoing any correction. This solar correction itself, now made, and under these circumstances, (if we are right in our conclusions concerning it,) borrowed its epoch from the vulgar Metonic one of the time being.

As to any other changes which might have been made in the preexisting state of the calendar; in the absence of positive testimony we can speak only conjecturally: yet we should be entirely of opinion that, when the first of Boëdromion was thus constituted the epoch of a new calendar, and a solar or Julian one, in contradistinction to the lunar before in use, Boëdromion itself received the name of Hecatombæon: i. e. that Hecatombæon continued still to be the first month in this new calendar, just as it had been in the old one until then; but that it bore date in this first instance on the first of Boëdromion for the time being. On this principle, Hecatombæon must have been shifted from its own place in the calendar to that of Boëdromion; and Boëdromion thereby falling back into the place of Metageitnion, and Metageitnion into that of Hecatombæon—if nothing else was done at the same time, affecting the rest of the months, then Hecatombæon being the first month in this new solar or Julian calendar, Pyanepsion would be the second, and the rest would follow in the same order as in the old lunar calendar, as far as the tenth month, Skirrhophorion, at least. But the xith month would now be Metageitnion, and the xiith would be Boëdromion; and the entire scheme of this new calendar, both for the leap-year and for the common years of its proper cycle, may be exhibited as follows:

## SECTION VII.—*Type i. of the Attic Julian Calendar.*

Epoch, Hecatombæon 1. Sept. 4. A.D. 127.

| | ist year of the Cycle of leap-year. | Days. | | | iid iiid and ivth year of the Cycle of leap-year. | |
|---|---|---|---|---|---|---|
| i. | Hecatombæon | 30 | September | 4 | September | 3 |
| ii. | Pyanepsion | 30 | October | 4 | October | 3 |
| iii. | Mæmacterion | 30 | November | 3 | November | 2 |
| iv. | Posideon | 30 | December | 3 | December | 2 |
| v. | Gamelion | 30 | January | 2 | January | 1 |
| vi. | Anthesterion | 30 | February | 1 | —— | 31 |
| vii. | Elaphebolion | 30 | March | 2 | March | 2 |
| viii. | Munychion | 30 | April | 1 | April | 1 |
| ix. | Thargelion | 30 | May | 1 | May | 1 |
| x. | Skirrhophorion | 30 | —— | 31 | —— | 31 |
| xi. | Metageitnion | 30 | June | 30 | June | 30 |
| xii. | Boëdromion | 30 | July | 30 | July | 30 |

xiii. Epagomenæ 5 Aug. 29. Epagomenæ 5 Aug. 29.
iv year —— 6 — —

This scheme, it is manifest, agrees to that idea of the Attic solar calendar which we have seen reason to form from the testimony of Galen in particular. His date of the rising of Sirius, Metageitnion 15, July 14, is explained by it at once.

Though therefore we admit the uncertainty which still hangs over the history of this calendar in general, we are of opinion that such was the original form of the Attic solar or Julian correction, or of what we may call on that account the *first* Type of the proper Attic Julian calendar. Nor are we altogether destitute of the means of verifying and confirming this Type. A number of isolated statements at least are on record, which nothing is competent so probably and so consistently to explain as the assumed existence of an Attic solar calendar, such as is represented by this Type.

## SECTION VIII.—*Confirmation of Type i by particular facts or statements.*

i. A gloss occurs in Suidas, according to the reading of the text in Kuster, on the word Ποσειδεών· Μὴν παρὰ ’Αθηναίοις οὕτω καλούμενος, Δεκέμβριος : and another on the word Γαμηλιῶνος· τοῦ ’Ιανουαρίου : both which are explained by this Type—in which Posideon actually corresponded to December and Gamelion to January.

ii. In Marinus' life of Proclus, the death of Proclus is dated on the 17th Munychion in the Attic, the 17th April in the Julian calendar ; implying that Munychion in the former was absolutely the same with April in the latter. And so it was according to this type. ’Ετελεύτησε δὲ τῷ δ′ καὶ κ′ καὶ ρ′ (the 124th) (ἔτει) ἀπὸ τῆς ’Ιουλιανοῦ βασιλείας (i. e. from the first year of the reign of Julian, A. D. 361—U. C. 1238 A. D. 485) ἄρχοντος ’Αθήνησι Νικαγόρου τοῦ νεωτέρου, μηνὸς κατὰ μὲν ’Αθηναίους Μουνυχιῶνος ιζ′ κατὰ δὲ ‛Ρωμαίους ’Απριλλίου ιζ′ [g].

iii. Martianus Capella has the following statement, taken from one of Agatharchides, which we had occasion to quote supra [h]: Cum in Arabia *Novembri* mense, sub noctis auspicio Helice non conspecta, secunda vigilia prospectatur [i]. What is here called November in Agatharchides was Mæmacterion : and in this type Mæmacterion corresponded to November.

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[g] Vita, per Fabricium, cap. xxxvi. pag. 73. Cf. Suidas in Μάρινος. Photius, Bibl. Cod 242. 345. 18. Also, Corsini, F. Attici, i. tom. ii. xiv. 6. 407, 408.

[h] Vol. i. 527.

[i] vi. 193. De Geometria.

iv. In the fragments of Eunapius an observation occurs to this effect[j]: *Τίς οὖν λόγος πρὸς ἱστορίας τέλος εἰδέναι καὶ γινώσκειν ὅτι τὴν ἐν Σαλαμῖνι ναυμαχίαν ἐνίκων οἱ Ἕλληνες κυνὸς ἐπιτέλλοντος*; The nominal date of Salamis was no doubt always the same, Boëdromion 20. In this first type of the Attic solar or Julian calendar, every thing else remaining the same, if Boëdromion was to be supposed to have got into the place of Metageitnion, and Metageitnion into that of Boëdromion—Boëdromion 20 would be July 19; and July 19 would be the commonly assigned date of the rising of Sirius[k].

v. According to the Scholia on Thucydides—the *συνοίκια*, alluded to in Thucydides[l], were celebrated in the month Metageitnion: Ὁ *δὲ μὴν ἐκεῖνος ὠνομάσθη Μεταγειτνιών*: though we know from older authority that they were celebrated in Hecatombæon[m]. But these scholia were later than the transfer of the seat of the Roman empire to Constantinople; and in the Attic calendar, Type i, Metageitnion occupied the place of Hecatombæon.

vi. In the well known passage of the Epistle of Philip[n], which makes the three months, the Macedonian Loüs, the Attic Boëdromion, and the Corinthian Panemus, more or less coincident, the best explanation of the difficulty, in our opinion, is this; of supposing the name of Boëdromion to have been substituted for that of Hecatombæon, which only could have answered to the Macedonian Loüs: and that would imply that, whosoever was the author of this substitution, he made use of a type of the Attic calendar, in which Boëdromion and Hecatombæon had changed, or might be supposed to have changed, places—as they had done, or might be supposed to have done, in this first type.

vii. The arrival of Alexander at Thapsacus, before the battle of Arbela, B. C. 331, is dated by Arrian in Hecatombæon; *Ἄρχοντος Ἀθήνησιν Ἀριστοφάνους*[o]: and the battle of

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[j] SS. Deperditorum Vaticana Coll. ii. 250. *προοίμιον*, iii. Of Eunapius, cf. Phot. Bibl. Cod. 77. p. 54. 4. He continued Dexippus from the end of the reign of Claudius, A. D. 269, to the reign of Arcadius and Honorius; i. e. circ. A. D. 395. Cf. SS. Dep. Vat. Coll. loc. cit. p. 311-316. We shall see by and by that he was a contemporary of Julian's also.

[k] Cf. Pliny, H. N. ii. 47. Also our Fasti Catholici, iii. 17. 53, 54.

[l] ii. 15.

[m] Cf. vol. i. p. 115.

[n] Dem. xviii. 202.

[o] iii. 7. cf. 15.

Arbela under the same archon in Pyanepsion. The date of the lunar eclipse[p], only a day or two after the passage of the Euphrates at Thapsacus, is demonstrative that the Euphrates was crossed in Boëdromion. If so, Hecatombæon, in the text of Arrian, must be the same with Boëdromion: and that will render his statement consistent with the truth—but nothing else will. And his Hecatombæon being dated Sept. 3, his Pyanepsion would be dated October 3—which was only two days later than the true date of Arbela, October 1[p]*.

viii. In the Scholia on Aristotle[q], the same commentator, (Asclep.), speaking of the *Θαργήλια*, has *ἡ ἑορτὴ γίνεται τῷ Θαργηλίῳ μηνί*—and then, *ὁ Μαΐος*—implying that the month of the Thargelia, i. e. Thargelion, corresponded to May. And so it did in this first type of the Attic Julian calendar.

ix. An inscription is extant[r], which appears to have recorded a decree of the senate of the Areopagus, and of that of the *φ′*, passed in the reign of Severus, in consequence of the association of Caracalla, and dated accordingly by Mr. Boeckh A. D. 198[s]. The day of the month is wanting; but the words *μηνὸς Ποσειδεῶνος* still appear; implying that it was passed in Posideon. Now it may be collected, even from what remains of it, that it was not passed in a second Posideon: and if not, and Mr. B.'s date for it is correct, that is so far an argument that there must have been at this time an Attic solar calendar, in which the names of the months were the same as those of the lunar: for if the calendar had still been lunar, A. D. 198, Period ix. 22, Cycle xxxiv. 3, that year, by the rule of the cycle, would have been intercalary, and there must have been a second Posideon.

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* Arrian was certainly living and writing both after our assumed date of the Attic Julian correction, Sept. 4, A. D. 127, and before it. The Periplus Ponti Euxini ascribed to him in the Geographi Minores, tom. i. was dedicated to Trajan. Cf. Lydus, De Magistratibus, iii. 53. 246. 9. But that he was living and writing also in the reigns of the successors of Trajan, Adrian, Antoninus Pius, and Marcus Aurelius, appears from Photius, Cod. 58. p. 17: Codex 93. p. 73: Suidas, Ἀρριανὸς, (cf. in *Δίων Κάσσιος*:) Jerome, Thesaurus Temporum, Ol. ccxxxi. 2. According to Photius and Suidas, he attained to the consulship under Marcus Aurelius, or Antoninus. He was of Nicomedia in Bithynia. Cf. his own account of himself, i. 12: and Photius and Suidas locis citatis. He was also the disciple of Epictetus, to whom we owe the works of Epictetus: Photius loco citato. Cf. Lucian, ii. 209. Alexander, 2. 30–44.

[p] Supra, 101. No. liv.

[q] 727. 39 a. (Opp. ii. 1023. 10. Metaphysica, iv. 24.) cf. 577. 26 b. (Opp. ii. 991. 13 b. Met. i. 9.)

[r] Corpus Inscript. No. 353.

[s] Pag. 422. Cf. Mr. Clinton's Fasti Romani, i. ad ann. 198.

x. The difficulty which has been raised respecting the exemtile day in the old lunar calendar, on the strength of the testimony of Pollux in particular, has been adverted to [t]. It is very observable however that the names of the months in the Attic calendar are no where mentioned by him; and in a work like his Onomasticon such an omission was *a priori* not to have been expected. Gaza has a remark on this omission, which, in our opinion, was not without foundation [v]: Ἔοικε δὲ μηδὲ τοῖς πολὺ πρόσθε ῥᾴδιον εἶναι (to fix the names and order of the months) ὅτε δὴ καὶ Πολυδεύκης, τὰ Ὀνομαστικὰ Καίσαρι Κομμόδῳ συγγεγραφὼς, τὰς μὲν ἡμέρας τοῦ μηνὸς ὅπως ἀριθμητέον τε καὶ ὀνομαστέον λέγει, (εἰ καὶ μὴ καλῶς,) τοὺς μῆνας δ᾽ αὐτοὺς παρασιγῶν ἀπολείπει [x]. It would explain the omission, if there was both a solar and a lunar calendar at this time, making use of the same names of the months, but not in the same sense, and possibly not in the same order. He has defined the ἐνιαυτὸς, or ἔτος, as δωδεκάμηνος χρόνος [y]—a definition which would be perpetually applicable to a solar year, but not always to a lunar one, which at stated times is a period of thirteen months.

That he himself must have lived and written much later than the adoption of the solar calendar, A. D. 127, is certain, if, as Philostratus tells us [z], he was appointed to the sophist's chair at Athens by Commodus; and, as both he and Suidas inform us, died at 58: on which supposition, even though he had died in the first year of Commodus, A. D. 181, he could not have been more than three or four years old A. D. 127. Lucian was his contemporary; and it has been suspected that in some parts of his works, particularly in his Lexiphanes [a], and in his Rhetorum Præcepta[b], Lucian has made Pollux the subject of his satire.

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[t] Vol. i. p. 59. *n.*

[v] De Mens. i. Uranolog. 278 B.

[x] Cf. xviii. 307 A–B.

[y] i. vii. 1.

[z] Vitæ Soph. ii. 590 B–C. Cf. Suidas, Πολυδεύκης.

[a] ii. 317. Cf. the Scholia: Φασὶν ὡς εἰς Πολυδεύκη τὸν ὀνοματολόγον ἀποτεινόμενον Λουκιανὸν τοῦτον γράψαι τὸν λόγον ... καὶ ἴσως οὐκ ἀπὸ σκοποῦ ταῦτα τοῖς φήσασιν εἴρηται· ἐπεὶ καὶ σύγχρονοι ἄμφω .... ἐπὶ γὰρ Μάρκου τοῦ αὐτοκράτορος.

### SECTION IX.—*Whether the old Lunar Calendar was superseded by the Solar Correction of A. D.* 127.

We admit indeed that the history of this first Type of the Attic Solar or Julian Correction is involved in much obscurity. A question too naturally suggests itself, in connection with this subject, which tends only to perplex it still more; viz. whether the old Lunar calendar, which had been so long in use at Athens, was immediately laid aside, when this Solar one was introduced; or retained some time longer? We are of opinion that, for religious and liturgical purposes at least, this was actually the case; with no difference except that even in the old Metonic calendar, as still continued in use, the reckoning of the months now began with Boëdromion, instead of Hecatombæon.

i. We had occasion to shew in a general manner, in our Fasti Catholici[c], and we shall have occasion to shew more circumstantially in the course of the second Part of the present work, that when the Athenians adopted their Solar calendar (A. D. 127, as we have supposed), they corrected some of the dates in their old Lunar calendar; especially the date of the Thesmophoria, which before was Pyanepsion 14, and the three following days, and from this time forward became Pyanepsion 10, and the three next to that: and this of course would not have been done, if the old Lunar calendar was not to be retained.

ii. The three inscriptions referred to supra[d], each of them either actually or virtually recognising Boëdromion as the first month, and Metageitnion as the last, in the calendar of the time being, and one of them a double Posideon, are proofs that the year was still lunar, though it began at this time in Boëdromion and ended in Metageitnion. And though the precise dates of these inscriptions are uncertain, there is little doubt that all three were later than the reign of Adrian.

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[b] iii. 1. cf. 26. 24, 18: *Οὐκ ἔτι Ποθεινὸς ὀνομάζομαι ἀλλ' ἤδη τοῖς Διὸς καὶ Λήδας παισὶν ὁμώνυμος γεγένημαι.* Cf. 25. 24. 7: from both which we may infer that in Lucian's opinion he had no right to the name of Πολυδεύκης. The allusion in the latter instance is to the fact that Pollux was of Egyptian extraction, a native of Naucratis in Egypt, or, as Lucian would imply, hardly so much of a Greek as that.

[c] Tom. iii. 590. Diss. xiii. ch. vi. sect. xii. ix.

[d] Page 141.

iii. It has been seen from the testimony of Appian[e], that A. D. 147, when he was writing his history of the civil wars of the Romans, Anthesterion in the Attic calendar was falling, relatively to the Julian, exactly as the lunar Anthesterion of the old calendar, if left all along to its own laws, at that distance of time from the epoch both would be, and must have been, falling: and that is demonstrative that it could not have been laid aside in A. D. 127.

iv. The Eleusiniaca of Aristides the Sophist was written about the time of the Mysteries; and those are alluded to in it, not only as at hand, but as about to be celebrated in Boëdromion—i.e. as we may presume, at the usual time and according to the usual rule: *Καὶ δὴ προσάγει μὲν ὦ γῆ καὶ θευὶ τὰ μυστήρια. Βοηδρομιὼν δὲ οὗτος ἑτέρας τὰ νῦν δεῖται βοῆς, οὐχ οἵας ὅτε Ἴων Ἀθήναζε ἐβοήθησεν*[f]. This is explained by the fact that the temple at Eleusis had just been burnt down; and as Aristides would imply, by the act of incendiaries[g]: by whom it is suspected he meant the Christians. For the chronology of the life of Aristides, we refer to our Dissertations[h]. The Scholiast on the Panathenaïc Oration tells us[i] that Antoninus Pius some time or other, *τὸν ἐν Ἐλευσῖνι νεὼν πολυτελῶς ἐπεσκεύασε*. In any case this Eleusinian oration was later than the reign of Adrian.

v. It appears from A. Gellius[k] that, when he was studying at Athens, the young men of the place were accustomed to meet together on the lunar quarters, or as he calls them the lunar septenaries: Is in conviviis juvenum quæ agitare Athenis hebdomadibus lunæ sollemne nobis fuit, &c. It may be proved from his own testimony that he must have been residing at Athens in the early part of the reign of Antoninus Pius; and this custom would seem to imply that the calendar was still lunar in some sense or other, when he was there.

vi. Philostratus also has left it on record, in his Life of

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[e] Supra, page 130. No. xci.

[f] xix. 422–5.

[g] 421. 12–18: 422. 2–423. 4: 415. 7–11.

[h] Vol. v. 531 sqq. Appendix, Diss. xxvii.

[i] iii. 308. 23–309. 3.

[k] xv. 2.

Herodes Atticus[l], that when Herodes lost his daughter Panathenaïs, (whose name implies that she had been born at the Panathenæa,) the Athenians decreed that the day of her death should be exempted from the year: and this must be decisive that certain days in the calendar were still liable to be exemptile; consequently that the calendar was still lunar. The date of the death of Panathenaïs is not known; except that it was later than the death of Regilla, Herodes' wife; and *her* death appears to have happened about the time when her brother Bradua was consul; that is, U. C. 913, A. D. 160[m].

vii. From such facts as these, the inference seems to be necessary, that, even though a solar and Julian calendar might have been adopted A. D. 127, the old lunar calendar must still have been retained some time longer. There is a passage in Galen, which with the knowledge of both these facts (both that there was now a solar Boëdromion, and also a lunar Boëdromion, each in use at the same time) may possibly appear to be significant. Speaking of the fruit of the fir, he observes[n]: *Ἔστι μὲν οὖν ὡραιότατον αὐτῆς τὸ σπέρμα περὶ τὴν ἐπιτολὴν τοῦ Ἀρκτούρου, ὅστις καιρὸς ἐν Ῥώμῃ μὲν ὁ καλούμενος μήν ἐστι Σεπτέμβριος, ἐν Περγάμῳ δὲ παρ' ἡμῖν Ὑπερβερεταῖος, Ἀθήνησι δὲ μυστήρια.* This passage was quoted by Gaza[o]. Galen's date of the ortus Arcturi was *twelve* days before the autumnal equinox; of which we need produce at present only one proof[p]: *Ἀρχὴν λαμβάνει τὸ φθινόπωρον ἀπὸ τῆς τοῦ Ἀρκτούρου ἐπιτολῆς, ἣ γίνεται πρὸ τῆς φθινοπωρινῆς ἰσημερίας· ὥσπερ καὶ ἡ ἀρχὴ μὲν τοῦ ἦρος εἶναι δοκεῖ ἡ κατ' ἐκεῖνον τὸν καιρὸν ἰσημερία, τελευτὴ δὲ τῶν πλειάδων ἐπιτολή. ἴσμεν δὲ καὶ ταύτην εἶναι τὴν ἀρχὴν τοῦ θέρους, ὡς καὶ τοῦ θέρους τελευτὴν καὶ ἀρχὴν τοῦ φθινοπώρου ἐπιτολὴν τοῦ Ἀρκτούρου, προλαμβάνουσαν τὴν φθινοπωρινὴν ἰσημερίαν ἡμέραις ὡς δώδεκα. ἤδη δὲ καὶ ἡ τῶν Πλειάδων δύσις ἐστὶν ἀρχὴ τοῦ χειμῶνος καὶ τοῦ φθινοπώρου τελευτή*[q].

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[l] ii. 556 C.

[m] Cf. our Dissertations, vol. v. Part ii. note, 542–546.

[n] Opp. vi. 286, 287. Περὶ Ὑγιεινῶν, iv. 8.

[o] De Mensibus, v. 286 C.

[p] xvi. 383. 14–384. 7. In Hippocrat. Περὶ Χυμῶν, iii. 11.

[q] Cf. xvii. Pars i. 16 last line–17. 1: 21. 11–15: 19. 5–13. In Epidem. i. 1: 85. 14–87. 4. In ii. 1. 2: 87. 8–11: 654. 6–8. In Epidem. iii. Comm. iii. 2: Pars ii. 598. 16–599. 6: Comm. in Aphorism.

The date of the treatise in which this passage occurs was some time in the reign of Marcus Aurelius[r]: not earlier than Galen's return from his first visit to Rome, A.D. 167[s]: and in our opinion it was A. D. 168, just before his second visit. This year, by the Metonic calendar (Period viii. 68, Cycle xxxii. 11) the first of Boëdromion fell August 31, and the fifteenth, the stated date of the mysteries, September 13—only one day later than Galen's date of the Ortus Arcturi, 12 days before September 24. By the calendar of Pergamus, (which was still lunar, A. D. 168,) Period vii. 17, the first of Hyperberetæus fell August 23, and the principal part of it agreed with the Attic Boëdromion, as well as the Roman September. Why then, we may ask, did not Galen date the ripening of the seed of the fir in the Attic Boëdromion, as much as in the Roman September, or the Pergamene Hyperberetæus? Probably because Boëdromion was now an ambiguous term; if there was both a solar month so called which fell much earlier than the mysteries, and a lunar one by which the mysteries were still celebrated. To specify the time by that of the mysteries was liable to no ambiguity; but by the name of the month would have been so.

## SECTION X.—*On the second Type of the Attic Solar or Julian Calendar.*

Assuming that the first month in the solar calendar of the Athenians was Hecatombæon—but that instead of being followed by Metageitnion, as in the old lunar calendar, it was followed by Boëdromion—we shall obtain a second Type of this solar calendar, which will differ *per accidens* only from the first, and yet will represent the state of this calendar in the time of Epiphanius, just as exactly as the first did its state in the time of Galen.

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[r] vi. 5 : 406. 4-11.

[s] vi. 11 : 434. 11.

### *Type ii. of the Attic Julian Calendar.*

Epoch, Hecatombæon 1, September 4 or 3.

| | ist year of the cycle of leap-year. | Days. | | | iind, iiird, and ivth years of the cycle of leap-year. | |
|---|---|---|---|---|---|---|
| i. | Hecatombæon | 30 | September | 4 | September | 3 |
| ii. | Boëdromion | 30 | October | 4 | October | 3 |
| iii. | Metageitnion | 30 | November | 3 | November | 2 |
| iv. | Pyanepsion | 30 | December | 3 | December | 2 |
| v. | Mæmacterion | 30 | January | 2 | January | 1 |
| vi. | Posideon | 30 | February | 1 | —— | 31 |
| vii. | Gamelion | 30 | March | 2 | March | 2 |
| viii. | Anthesterion | 30 | April | 1 | April | 1 |
| ix. | Elaphebolion | 30 | May | 1 | May | 1 |
| x. | Munychion | 30 | —— | 31 | —— | 31 |
| xi. | Thargelion | 30 | June | 30 | June | 30 |
| xii. | Skirrhophorion | 30 | July | 30 | July | 30 |

xiii. Epagomenæ 5, August 29. Epagomenæ 5, August 29.
ivth year— — 6, August 29.

This Type, as we have seen, is authenticated by the testimony of Epiphanius; and we should be of opinion that, after a time, it was the only recognised form of the Attic solar or Julian correction. As to *that* time, it is not in our power to assign it except conjecturally. We shall see by and by that this Type is virtually recognised by the emperor Julian, an older authority than Epiphanius; and perhaps we should not be much mistaken, if we supposed the calendar to have assumed this form in the reign of Constantine, when probably, in consequence of the establishment of Christianity by law, all over the empire, the old lunar calendar, with the feasts and observances before regulated by it, was laid aside: though it would not follow that if the former Type, such as it existed in the time of Galen, was really the *first* form of the solar calendar among the Athenians, the philosophers, like Eunapius, Marinus, and others, might not choose to make use of *that* rather than *this*—which would be peculiarly offensive to *them*, if for no other reason, yet because it was a standing memento of the downfall of the old religion, and of the triumph of Christianity. Nor are proofs wanting, distinct from the testimony of Epiphanius, by which the actual existence of a second type of this kind appears to be asserted and confirmed, in the same way as that of the first.

i. Among the calendars published by Henry Stephens, in the appendix to his Thesaurus[t], there is an Attic one, from an unedited MS. lexicon, belonging to himself, which, compared with the Julian, stands as follows:—

| | |
|---|---|
| Ἑκατομβαιὼν ὁ καὶ Κρόνιος. | ὁ Σεπτέμβριος. |
| Μεταγειτνιών. | ὁ Ὀκτώβριος. |
| * * | * * |
| Πυανεψιών. | ὁ Δεκέμβριος. |
| Μαιμακτηριών. | ὁ Ἰανουάριος. |
| Ληναιὼν ὁ καὶ Ποσειδεών. | ὁ Φεβρουάριος. |
| Γαμηλιών. | ὁ Μάρτιος. |
| Ἀνθεστηριών. | ὁ Ἀπρίλλιος |
| Ἐλαφηβολιών. | ὁ Μάϊος. |
| Μουνυχιών. | ὁ Ἰούνιος. |
| Θαργηλιών. | ὁ Ἰούλιος. |
| Σκιρροφοριών. | ὁ Αὔγουστος. |

The name of Βοηδρομιὼν, and as corresponding to November, is evidently omitted in this list, but whether by accident or designedly we cannot say. With this name supplied, this Attic calendar would agree with our second type in every circumstance but one, viz. that of having Μεταγειτνιὼν, instead of Βοηδρομιὼν, next to Ἑκατομβαιών. And that too might either be an accidental inversion of the relative order of these two months, or a change purposely made by the compiler of this list, because such was their old and classical order.

ii. Suidas has a gloss on the name of Μαιμακτηριών—Ὁ πέμπτος μὴν παρὰ Ἀθηναίοις, ὁ Ἰανουάριος—which has given much offence to his editors, but is explained by this type, in which Mæmacterion corresponded to January.

iii. In the time of Macrobius Anthesterion corresponded to April; and so it did in this type: Ab his omnibus mensem Aprilem dici merito credendum, quasi Aperilem: sicut apud Athenienses Ἀνθεστηριὼν idem mensis vocatur, ab eo quod hoc tempore cuncta florescant[v]. Macrobius wrote in the reign of Theodosius[x], and was contemporary with Epiphanius.

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[t] Col. 225.

[v] Saturnalia, i. xii. p. 257.

[x] Ibid. i. ii. 205. cf. our Origines Kal. Italicæ, ii. 51. 428: iv. 394.

iv. In the scholia on Plato[y], the Olympic Games, it is said, were celebrated in Munychion: *Ὀλυμπία…ἔνθα τὰ Ὀλύμπια καὶ ἀγὼν πενταετηρικὸς Μουνυχιῶνος μηνὸς ἤγετο τῷ Διΐ.* The proper Olympic months in the Attic calendar were Skirrhophorion and Hecatombæon; in the Julian, June and July: and this statement admits of being explained, if Munychion, in the time of these scholia, which were later than Origen, Proclus, and others, had got into the place of Skirrhophorion, and was corresponding to June.

v. An Athenian decree occurs in Josephus[z], in which Munychion is made the same with the Syro-Macedonian Panemus; and a Delian one[a], in which Thargelion, as we collect from the context, must have been supposed the same with the Roman Julius; and both these representations admit of being explained, if Munychion, in the former instance, was equivalent to Skirrhophorion, and Thargelion, in the latter, to Hecatombæon: as they were in this type of the Attic solar calendar, compared with the old and original lunar one.

vi. Lastly, it may be inferred from the emperor Julian's oration in honour of the Mater Deum, the date of which was A. D. 362, that the stated season of the greater mysteries (if they were still celebrated and had a regular season at all) coincided with the latter half of Libra or Chelæ, and that of the lesser with the middle or latter half of Aries: and both these things would be the case, if Boëdromion was now the same with October, and Anthesterion with April. He is assigning the reason why the ceremonies of the Mater Deum, the Phrygian Kybele, in particular, were attached to the vernal equinox, and not to the autumnal. *Σημεῖον δὲ τούτου*, says he[b], *ὅτι τὸν ἰσημερινὸν κύκλον ἡ θεὸς αὕτη κατενείματο. τελεῖται γὰρ περὶ τὸν ζυγὸν Δηοῖ καὶ Κόρῃ τὰ σεμνὰ καὶ ἀπόρρητα μυστήρια, καὶ τοῦτο εἰκότως γίνεται. χρὴ γὰρ καὶ ἀπιόντι τῷ θεῷ τελεσθῆναι πάλιν…δὶς γοῦν Ἀθηναῖοι τῇ Δηοῖ τελοῦσι τὰ μυστήρια·*

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[y] ii. 313. Phædrus, 20. 1.

[z] Ant. Jud. xiv. viii. 5.

[a] Ibid. x. 14. cf. our Origines Kal. Italicæ, iv. 457–459. This date is there explained on the supposition that the month mentioned is to be understood in its ordinary sense of the lunar Thargelion: and in that case, the 20th, of June 8. And this was possible under the circumstances of the case; and yet a date, just one month later, July 7 or 8, would perhaps be more probable.

[b] Opp. 173 A. B. Oratio v.

(ἐν) αὐτῷ μὲν τῷ κριῷ τὰ μικρά φασι μυστήρια, τὰ μεγάλα δὲ περὶ τὰς χηλὰς ὄντος ἡλίου, δι' ἃς ἔναγχος ἔφην αἰτίας.

There is an observable distinction in the language here employed, to define the respective times of the two mysteries relatively to the celestial calendar, or to the signs—περὶ τὰς χηλὰς ὄντος ἡλίου, in reference to the greater, ἐν αὐτῷ τῷ κριῷ, in reference to the lesser. And this is probably significant, and would be explained, if the first half of Boëdromion, the stated month of the greater mysteries, coincided at this time more or less with the first half of October; and the first half of Anthesterion, that of the lesser, with the first half of April: for the consequence of that would be, that the 15th of Boëdromion, the first of the mystical feriæ, would always fall about the end of the sign of Chelæ or Libra, and the 15th of Anthesterion, if that was the date of the lesser mysteries (and much more any earlier date in the same month) would uniformly fall out while the sun was in Aries. The ingress of the sun into Libra, *in octavis partibus*, in the Julian calendar, would be reckoned September 17; and the ingress into Scorpio, October 17. The ingress into Aries, on the same principle, would be March 18, and the ingress into Taurus, April 18; and the 15th Boëdromion in this second type of the Attic solar calendar, October 17, the last day of the sun in Libra, or the first in Scorpio, could scarcely have been otherwise described than as περὶ τὰς χηλὰς ὄντος ἡλίου—neither exactly in them nor exactly out of them—but even the 15th of Anthesterion, April 15, and any later day of that month, up to the 24th or 25th, must have been described as ἐν αὐτῷ τῷ κριῷ. These mysteries in particular could not have been spoken of as falling out of the limits of the celestial Krion in any sense*.

* Whether the mysteries were still openly celebrated in the time of Julian, is a doubtful point. Corsini, on the authority of Mamertinus, asserts that they were restored by him[1]; and that must imply that previously they were in abeyance. Whether he himself was ever initiated is doubtful also: and his language in reference to the lesser mysteries (ἐν αὐτῷ μὲν τῷ κριῷ τὰ μικρά φασι μυστήρια) would imply that with those at least he could never have been personally acquainted. With respect to the greater, Eunapius tells us[2] that he himself was initiated in *them* by the

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[1] Fasti Attici, iv. 194. A.D. 361.

[2] Vitæ Sophistarum, Maximus, p. 52.

very same hierophant who had initiated Julian: and that was possible, since he and Julian were contemporaries[3], though he was 16 or 17 years the younger of the two.

It is difficult however to discover at what period in the lifetime of Julian this could have happened. It does not seem to have been possible, any time after the death of Constantius, (October 5 or November 3, A. D. 361,) nor even after his own appointment to the dignity of Cæsar, Nov. 6, A. D. 355; immediately after which he was sent into Gaul: where he continued until he was declared Augustus by the army in the lifetime of Constantius himself, A. D. 361. And from this time forward to the date of his death, June 26, A. D. 363, we can so trace his movements as to render it absolutely certain that if he had not been initiated before A. D. 355, he could never have been so after it. That he did not pass through Athens, on his march against Constantius from Gaul, A. D. 361, appears from his Epistle to the senate and people of Athens[4]. His declaration, if not later than the mysteries that year, was at least not much earlier: and the next year, A. D. 362, we know from his own testimony[5] that he was at Antioch by August 1.

If then he was ever initiated, it must have been some time during his residence at Athens, between the end of A. D. 354, when he was sent there, and November 6, A. D. 355: and it must have been by *stealth*; and so much so, that neither Gregory of Nazianzum, nor Basil of Cæsarea, who were at Athens with him, and from some suspicions of his sincerity, which they had already conceived, had their eyes upon him, appears to have been aware of the fact, or is ever found reproaching him with it. This is no improbable supposition; for we know from his own admission, that his apostasy from Christianity had taken place in his own mind long before this visit to Athens[6]; and from one of his Epistles[7], written after he became sole emperor, it appears that the change of his religious opinions had been resolved on twelve years before the date of that Epistle, A. D. 362[8]: Οὐχ ἁμαρτήσεσθε παρὰ ὀρθῆς ὁδοῦ πειθόμενοι τῷ πορευθέντι κἀκείνην τὴν ὁδὸν ἄχρις ἐτῶν εἴκοσι, καὶ ταύτην ἴδου (corr. ἤδη) σὺν θεοῖς πορευομένῳ δωδέκατον ἔτος.

Julian's apostasy then was really conceived A. D. 351, though openly avowed only A. D. 362. It is no wonder therefore that, if he was at Athens at the mysteries four years after, (A. D. 355,) he should have availed himself of the opportunity to be initiated, though *secretly* and by *stealth*: possibly, over and above the consideration of his personal safety, because the mysteries themselves could now be communicated only by stealth.

Now this year, A. D. 355, Period xi. 27, Cycle xlii. 8 of the old Metonic calendar, (if it was continuing still in use,) the first of Boëdromion must have fallen September 7, and the 15th (the 2d being exemtile) September 20: and had the mysteries been celebrated this year, by this old calendar,

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[3] Cf. Proæresius, 74–93 ad calcem.

[4] Opp. 270–287 C. D.

[5] Epp. lii. 438 C.

[6] Cf. Opp. 277 B. The Epistola ad Senatum Populumque Atheniensium.

[7] li. 434 D. to the people of Antioch.

[8] Cf. 353 A. in the Misopogon, written early the next year, A. D. 363.

## SECTION XI.—*On the secondary Types of the Attic Solar or Julian Calendar; and the principles on which they were designed.*

The two Types of the Attic Solar and Julian year, of which we have just given an account, are the only two which can be considered genuine of their kind; and are confirmed by evidence, leaving no doubt that each of them, at a different time, must have been actually in use among the Athenians. Besides these however, not a few more are discoverable, alto-

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they must have begun and ended within the first fifteen days of the sun in Chelæ or Libra: and that would not be consistent with Julian's own language, only seven years later, *περὶ τὰς χηλὰς ὄντος ἡλίου*. But, if even this year they were celebrated by the Solar calendar, of Type ii, as the only one now in use at Athens, they would begin to be celebrated October 18, and his recollection of them, and his account of them from his personal experience seven years later, would be consistent, and such as might *a priori* have been expected.

It is worthy of remark that there is also in Libanius' λόγος Ἐπιτάφιος, or funeral oration on the Emperor Julian, a reference to the Epistle above alluded to, addressed by him (when on his way to the decision of the contest for the purple, A. D. 361,) to the senate and people of Athens; which may throw some light on the rule of the mysteries at this period of their history[9]: *Εἰδὼς δὲ ὡς καὶ θεοὶ παρ' Ἀθηναίοις ἐκρίθησαν, εὐθύνας ἠξίωσε δοῦναι τῶν πεπραγμένων, καὶ τοὺς Ἐρεχθείδας ὁ βασιλεὺς ἐποίει δικαστὰς, πέμπων ἀπολογίαν ἐν γράμμασιν .... ὁδοῦ δὲ πάρεργον, στάσιν ἐμπεπτωκυῖαν ἱεροῖς γένεσι, διιστᾶσαν τρόπον τινα πόλιν, ἐπιστολαῖς ἔπαυσεν, ὡς ἂν ἐν ὁμονοίᾳ καὶ καθ' ἡσυχίαν τὰ πάτρια τελοῖτο τοῖς κρείττοσι. καὶ Ἀθηναῖοι μὲν ἐθύοντο χρόνιοι, καὶ τοῖς θεοῖς ηὔχοντο ταῦτα ἃ καὶ μηδενὸς εὐχομένου δώσειν ἔμελλον.* Julian's declaration, A. D. 361, must have fallen out so near to the stated time of the mysteries, that the disputes here alluded to might be, and very probably were, occasioned by a difference of opinion among the Athenians, whether they should be celebrated this year (the first in which they could be with impunity since the time of Constantine) according to the old lunar calendar, or according to the new solar one. He entered Illyricum only at the beginning of November, and Constantius died on the third of that month at the latest: and according to Ammianus Marcellinus, even a month earlier, October 5, which we should probably rather accept as the true date of his death[10]. By the old calendar, Period xi. 33, Cycle xlii. 14, the mysteries would have begun October 12; by the solar, five days later, October 17: and that might be the subject of the dispute going on when Julian wrote to them, whether they should be celebrated October 12 or October 17.

[9] i. 560. 10–20. xviii Ἐπιτάφιος.

[10] Cf. our F. Catholici, ii. 601, 602. cf. also Libanius, loco citato, 561, 562.

gether different in every thing but the names and order of the months, yet recognised apparently, and circulating under the name of the Attic calendar; and implicitly received and referred to by the scholiasts and commentators of antiquity.

It would be too much to suppose that these secondary Types in every instance originated in ignorance; or that they could ever have been seriously proposed or quoted as the actual Types of the Attic civil calendar: for, as we have observed, they agree with the two genuine Types in the order and names of the months, and differ from them only in their respective relations to the Julian calendar: and they appear to have been already recognised at a time when the true solar and Julian calendar of the Athenians, if there was once such an one among them, in contradistinction to their old lunar one, though not actually still in use, could not yet have been forgotten. It is certain however that they have had an important influence upon the readings of the names of the Attic months in the remains of classical antiquity; of which in repeated instances they have led to corruptions, by the substitution of other names, taken directly from these secondary Types: and consequently they have given occasion to many chronological difficulties, which can be altogether removed only by the restoration of the genuine names in each of these cases.

In our opinion, all these other types of the Attic solar calendar, anywhere discoverable at present, originated in one and the same motive, and were directed to one and the same object; viz. that of representing and expressing some other form of the same kind of year, and the months of some other calendar of the same kind in general, by the classical names of the Attic calendar in particular. They are all therefore to be regarded not so much as types of the Attic solar calendar, as of some other under the name of the Attic. And this view of the common motive in which they all took their rise, and of the common end to which they were all directed, enables us to digest them, without any difficulty, under a certain number of heads; viz. as many as there were forms of the solar and Julian year, distinct from the Attic, sufficiently interesting in themselves, and extensive in their use and circulation, to make it desirable to assimilate them to the Attic calendar, and to give the proper months of each of these the Attic names. And those forms of the solar and Julian year, which would most properly answer to this description, after a time being reducible to *three*, the Ecclesiastical solar and Julian year, the Syro-Macedonian solar and Julian year, and the Roman solar and Julian year; it is found on inquiry, that these secondary types of the Attic solar and Julian calendar are reducible under three heads too; one which is simply the ecclesiastical year, or year of the church, in terms of the Attic calendar, i. e. under the names of the Attic months; another, which is simply the Syro-Macedonian solar and Julian calendar, in the form of the Attic; a third, which is simply the Roman, or proper Julian calendar, similarly represented. Seven types of these secondary calendars, as we shall see, are discoverable; but this classification comprehends them all, or six out of the seven at least. Subject to this division therefore, we shall proceed to give some account of them; but with as much brevity as possible.

### SECTION XII.—*On the Third Type of the Attic solar calendar in general, the first of the secondary Types in particular; the Ecclesiastical Type of the Attic solar calendar.*

The beginning of the ecclesiastical year, or solar and Julian year of the church, appears to have been determined after a time to the first of April; probably in deference to the authority of the Apostolical Constitutions, which had recognised Dystrus, or March, as the twelfth month[c], and the month of the Nativity, or December, as the ninth[d], and consequently April as the first. And though it may be difficult to say when this rule of reckoning was first adopted, yet it appears that the first of April was already recognised as the first day of the ecclesiastical year, before the date of the Computus of Maximus, Æra Diocletiani 357, Heraclii 31, Indict. 14[e], A. D. 641. As the vernal equinox however, from the beginning of the Christian æra downwards always fell in March—and as the beginning of time itself, and all its measures, was very generally assumed as the vernal equinox[f], and the vernal equinox as a fixed and invariable term of its kind, on some day in March—and as the mensis Novorum too, or Paschal month, was necessarily more or less coincident with March; the ecclesiastical solar year was very generally determined also to the first of March. There were consequently, after a time, two recognised epochs of the ecclesiastical year; the first of April and the first of March: and we find two Types of the Attic solar year, one of which corresponds to the former, and the other to the latter. To both of these therefore we may give the name of the ecclesiastical Type of the Attic solar calendar in general.

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[c] Lib. v. 17. cf. 14.

[d] Ibid. v. 13.

[e] Uranologium, 322. C. D. Pars i. xiii.: 333. B. xxviii.: 335. xxxii.: 350. Pars iii. ix.: cf. Scaliger, De Emendatione, vii. 749. B. 753, 754.

### *Type iii. of the Attic Solar Calendar.*
### *Ecclesiastical Type of the Attic Solar Calendar.*

Type iii. A. and Type iii. B.

| Type iii. A. | | Type iii. B. | |
|---|---|---|---|
| *Hecatombæon. | *April. | *Hecatombæon. | *March. |
| *Metageitnion. | *May. | Metageitnion. | April. |
| *Boëdromion. | *June. | Boëdromion. | May. |
| Pyanepsion. | July. | Pyanepsion. | June. |
| *Mæmacterion. | *August. | Mæmacterion. | July. |
| Posideon. | September. | Posideon. | August. |
| Gamelion. | October. | Gamelion. | September. |
| Anthesterion. | November. | Anthesterion. | October. |
| *Elaphebolion. | *December. | *Elaphebolion. | *November. |
| *Munychion. | *January. | Munychion. | December. |
| *Thargelion. | *February. | Thargelion. | January. |
| *Skirrhophorion. | *March. | *Skirrhophorion. | *February. |

With respect to the actual use of the first of these types. i. In the Scholia on Demosthenes and Æschines, Hecatombæon is identified with April[g], Metageitnion with May[h], Boëdromion with June[i], Mæmacterion with August[k], Elaphebolion with December[l], Munychion with January[m], Skirrhophorion with March[n]. ii. In the Variæ Historiæ of Ælian[o], where the Greek text has the 6th of Thargelion, the *Vetus Interpres* has the 6th of February. iii. In the letter of Philip, referred to supra[p], in the Oration De Corona[q], Boëdromion may have got into the text instead of Hecatombæon, under the idea that both were the same with June; as Boëdromion certainly was by this type. iv. In the Armenian version of the passage of Dionysius of Halicarnassus[r], relating to the capture of Troy, quoted by Eusebius[s], Elaphebolion corresponds to December. v. There is an unpublished Attic calendar, in one of the MSS. belonging to the Imperial Library at Vienna[t], in which the months are enumerated as follows: Μουνυχιὼν, Θαργηλιὼν, Σκιρροφοριὼν, Ἑκατομβαιὼν, Μεταγειτνιὼν, Βοηδρομιὼν, Πυανεψιὼν, Μαιμακτηριὼν, Ποσειδεὼν, Γαμηλιὼν, Ἀνθεστηριὼν, Ἐλαφηβολιὼν, quite in agreement with their order *inter se*, in the most classical schemes; and at the end a gloss is subjoined, Ἀθηναίων πρῶτος μὴν Ἑκατομβαιὼν, ὅς ἐστι παρὰ Ῥωμαίοις Ἀπρίλλιος: shewing that though the above enumeration began with Munychion, it was merely because Munychion in this Attic calendar corresponded to the Roman January.

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[f] Cf. our Fasti Catholici, ii. 118–120.

[g] Pag. 35. ad Olynthiaca, iii. 61. 3: P. 108. De Corona, 108. 6.

[h] Ibid

[i] Ibid. Pag. 99. De Corona, 67. 12: 68. antep.

[k] Pag. 35. Olynth. iii. 61. 3. P. 95. De Corona, 52. 7.

[l] Pag 127. De Falsa Leg. 230. 2.

[m] Pag. 109. De Corona, 121. 2.

With respect to the recognition of the second, though the vouchers for this are not so numerous as those for the first, it is nevertheless attested by the Scholia on Demosthenes, which identify Hecatombæon with March[v], and Elaphebolion with November[x]. In the text of Demosthenes, as we saw supra[xx], Hecatombæon has got into the place of Munychion, and Mæmacterion into that of Metageitnion; the former as corresponding to the Julian March, the latter as answering to the Julian July or August. We are told by Gaza[y], that while some in his time, or before it, made Hecatombæon the same with July, others identified it with March: and there is a statement in Isidore, respecting the beginning of the Greek calendar, relatively to the natural year, which cannot be explained, except of such a Greek calendar, as this of Type iii. B. or Type iii. A: Principium autem anni alii a bruma putant, ut populi Romani; alii ab æquinoctio verno, ut Græci; alii ab autumno, ut Ægyptii[z]. The classical Greek calendar, at no period of its history, nor among any of the Greeks, much less among the Athenians, bore date at the vernal equinox; but this solar calendar, which we have distinguished by the name of the ecclesiastical Attic calendar, Type iii. B, might have done so.

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[n] Pag. 127. De Falsa, 230. 6. 12.

[o] ii. 25.

[p] Page 157.

[q] xviii. 202.

[r] Ant. Rom. i. 63.

[s] Chronicon Arm. Lat. i. 367, 368.

[t] Cod. MS. Philos. No. cxxxiii. (Lambec. lib. vii. 525. fol. 24. p. 1–8.)

[v] Pag. 94. De Corona, 44. ult.

[x] Ibid. 97. De Corona, 59. antep.

[xx] Pag. 95, 96.

[y] De Mensibus, i. 277. B.

### SECTION XIII.—*On the Fourth Type of the Attic Solar Calendar in general, the second of the secondary Types in particular; the Syro-Macedonian Type of the Attic Solar Calendar.*

The Syro-Macedonian solar calendar, as most completely assimilated to the Roman Julian, was of two kinds; the Macedo-Hellenic, and the Macedo-Syrian. Both made use of the same names of the months, and in both the months followed each other in the same order; and in both the first month was called Dius, and the last Hyperberetæus. But in the former Dius bore date on the first of October, in the latter on the first of November. These two types of the Syro-Macedonian Solar and Julian calendar having been very generally in use, yet differing from one another in the manner which has thus been explained, we discover the vestiges of two types of the Attic Solar and Julian calendar also; in both of which Hecatombæon must have been the first month, and Skirrhophorion the last, but in one Hecatombæon must have corresponded to October, and Skirrhophorion to September, and in the other, Hecatombæon must have answered to November, and Skirrhophorion to October. These therefore we cannot hesitate to consider as neither more nor less than the two forms of the Syro-Macedonian Solar and Julian calendar of the time being, with the Attic, instead of the Macedonian, names of the months.

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[z] De Natura Rerum, vi. 248. C.

### *Type iv. of the Attic Solar Calendar.*

### *Syro-Macedonian Type of the Attic Solar Calendar.*

Type iv. A. and Type iv. B.

| Type iv. A. | | Type iv. B. | |
|---|---|---|---|
| Hecatombæon. | October. | Hecatombæon. | November. |
| Metageitnion. | November. | Metageitnion. | December. |
| Boëdromion. | December. | Boëdromion. | January. |
| Pyanepsion. | January | *Pyanepsion. | February. |
| *Mæmacterion. | *February. | Mæmacterion. | March. |
| Posideon. | March. | Posideon. | April. |
| Gamelion. | April. | Gamelion. | May. |
| Anthesterion. | May. | Anthesterion. | June. |
| Elaphebolion. | June. | Elaphebolion. | July. |
| Munychion. | July. | Munychion. | August. |
| Thargelion. | August. | Thargelion. | September. |
| Skirrhophorion. | September. | Skirrhophorion. | October. |

Of these Type A is authenticated by the date of the *Διάσια*, which appears in Eustathius[t], compared with the scholia on Lucian[v], Mæmacterion, as the same with February: though the classical date of the same ceremony was the *η΄ φθίνοντος* of *Ἀνθεστηριῶν*[x]. Also by the scholia on Plato[y], in which the month of the *Διονύσια ἐν λίμναις*, or *Λήναια*, is identified with Mæmacterion too, instead of Anthesterion. The second is attested by a gloss in the scholia on the Acharnenses[z], which makes Pyanepsion the month of the Choes, and the same with Anthesterion, as it would be by this Type.

### SECTION XIV.—*On the Fifth Type of the Attic Solar Calendar in general, the third of the secondary Types in particular; the Roman Type of the Attic Solar Calendar.*

This fifth type, as we have already intimated, is simply the Roman, or Julian properly so called, with the names of the Attic months, instead of the Roman. Two varieties of it are discoverable, Type v. A. Type v. B.

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[t] Ad Od. X. 481. 1935. 8, 9: cf. Scaliger, De Emendatione, iv. 243.

[v] i. 113. Timon, 7. 18: 155. ibid. 43. 5: ii. 779. Icaro-Menippus, 10. 17: iii. 618. Charidemus, i. 15: 619. 3. 40. 45.

[x] Scholia ad Nubes, 407. cf. ad 862. 980. also the note vol. i. 535.

[y] ii. 407. Resp. v. 265. 1. cf. also Lilius Gyraldus, De Anno et Mensibus, Opp. 785 C. D.

[z] Ad v. 960.

### *Type v. of the Attic Solar Calendar.*

### *Roman Type of the Attic Solar Calendar.*

Type v. A. and Type v. B.

| Type v. A. | | Type v. B. |
|---|---|---|
| January. | *Hecatombæon. | Hecatombæon. |
| February. | *Metageitnion. | Lenæon. |
| March. | *Boëdromion. | Cronius, or Cronion. |
| April. | Pyanepsion. | Boëdromion. |
| May. | *Mæmacterion. | Pyanepsion. |
| June. | Posideon. | Mæmacterion. |
| July. | Gamelion. | Anthesterion. |
| August. | Anthesterion. | Posideon. |
| September. | *Elaphebolion. | Gamelion. |
| October. | Munychion. | Elaphebolion. |
| November. | Thargelion. | Munychion. |
| December. | Skirrhophorion. | Skirrhophorion. |

The first of these two types is recognised in the scholia on Demosthenes, which identify Hecatombæon with January[a], Metageitnion with February[a], Boëdromion with March[a], Mæmacterion with May[a], and Elaphebolion with September[b]. It is the calendar exhibited by the Abbé Halma, from one of the MSS. of the National Library[c]; and we have seen it in the Bodleian Library, at the end of a MS. of Moschopulus. The second is the calendar proposed by Tzetzes[d], and quoted after him by Lilius Gyraldus[e]; and also by Κέκος, another commentator on Hesiod, referred to by Gaza[f]: and we have found it, along with other calendars, at the end of the Tetrabiblus of Ptolemy, in the Bodleian[g].

Lastly, the scholia on Demosthenes are found also in one instance to identify Elaphebolion with February[h]; and in another, Thargelion with April[i]; and in a third, Skirrhophorion with May[k]; which seems to imply the existence of a type, which in its integrity must have stood as follows:—

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[a] Page 35. Olynthiaca, 61. § 3.

[b] Page 109. De Corona, 120. § 25. (Reiske, 968. 1.)

[c] No. 2394. Ptolemæi Opera, iii. Diss. i. p. 34. cf. Introduction, p. xv.

[d] Ad Hesiod. Opera et Dies, 502.

[e] De Anno et Mensibus, Opp. 786 C. D.

[f] De Mensibus, v. 285 B.

[g] Codex Savill. 6659. 12.

[h] Page 109. De Corona, 120. 25.

[i] Page 109. De Corona, 120. pen.

[k] Page 110. De Corona, 129. § 9.

*Type vi. of the Attic Solar Calendar, or Type i. A.*

| | | | |
|---|---|---|---|
| Pyanepsion. | September. | Munychion. | March. |
| Mæmacterion. | October. | *Thargelion. | April. |
| Posideon. | November. | *Skirrhophorion. | May. |
| Gamelion. | December. | Hecatombæon. | June. |
| Anthesterion. | January. | Metageitnion. | July. |
| *Elaphebolion. | February. | Boëdromion. | August. |

And this approaches so nearly to the idea of the first of the two genuine Types of the Attic solar calendar, that it may be considered simply a modification of it, effected by restoring Hecatombæon to its proper place in the order of the months, between Skirrhophorion and Metageitnion, and leaving every thing else the same*.

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* Of these secondary types of the Attic calendar in general the third (Type iii. A.) appears to have been that which was commonly, though not exclusively, followed by Alexander ab Alexandro in his Geniales Dies.

Thus, iii. 18. 763. he has the Oschophoria Nonis Juliis, July 7, for Pyanepsion 7—iv. 20. 1144. he reckons the date of the νηστεία, of the Thesmophoria, Pyanepsion 15, July 15—iii. 18. 766. he has the Æsculapia Sacra (Elaphebolion 8) in December—iii. 18. 765. he has the lesser mysteries (Anthesterion) in November, and the greater (Boëdromion) in June—iii. 24. 836. he gives Munychion the name of Januarius, and speaking of Demetrius' initiation in both the mysteries at once, which we know took place in Munychion, iii. 18. 765. he observes, Demetrius rex, ut illorum (mysteriorum) particeps fieret non suo tempore, Januarium et Junium menses Novembrem appellavit; and this too implies that he considered Munychion the same with Januarius, and Boëdromion with Junius, and Anthesterion with November, as they would be respectively in Type iii. A.

Yet iii. 18. 765. also, he has the date of the greater mysteries, xiv. Kal. Novembres, October 19, which would be Boedromion 17, the third of the mystical feriæ by Type ii. And iii. 24. 834. he has—

Anthesterion = Martius.
Munychion = Martius, as in Type i. A.
Anthesterion = Aprilis, as in Type ii.
Chronius = Aprilis.
Metageitnion = Maius, as in Type iii. A.
Boëdromion = Junius, as in Type iii. A.
Posideon = December, as in Type i.
Lenæon = Januarius.
Tragelinus, or Thargelion = Februarius, as in Type iii. A.

# DISSERTATION IV.

## *On the Spartan Calendar**.

## CHAPTER I.

## *On the Lunar Correction of the Spartans.*

### SECTION I.—*The first Lunar Correction of the Spartans, the Octaëteric, of Type i.*

Whether it was the example of the people of Elis, who, as we shall see hereafter, did not hesitate to adopt the Attic correction of the primitive solar year, as soon as proposed, not only as their civil calendar, but also for the regulation of the Olympic Games; or the influence of Chilo, one of the seven wise men of antiquity, and the contemporary, and, no doubt, friend of Solon; or simply a desire to act in concert with the Athenians in obeying the directions of the oracle, recorded by Geminus, and thereby to set an example to the rest of the Greeks; whatsoever was the motive which determined the Spartans, in the change of style and in the substitution of the lunar for the solar year, to proceed concurrently with the Athenians—there is good reason to conclude that the first lunar correction of the primitive equable year, among them also, was made at the very same time, and under the very same circumstances, as among the Athenians; that the Spartan correction was derived from the primitive equable year, exactly in the same manner as the Attic: that the first of the primitive Thoth Æra Cyclica 3115, Jan. 19, B.C. 592, was constituted the epoch of the Spartan correction, as it was of the Attic; that the first lunar calendar of the Spartans, in every thing but the names of the months, agreed with the first of the Athenians; and that the type of this calendar and its proper cycle, already proposed as that of the Attic correction of Solon[l], is just as much that of the Spartan also.

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* There are two other calendars, the Elean and the Ionic, (each reducible under the first type of the Hellenic Octaëteris in general,) either of which might have been treated of next to the Attic, with the same propriety as the Spartan. But of these the Elean is so closely connected with the Olympic Institution, that it is necessarily to be reserved for the second Part of the present work; and the other, the Ionic, it will be found more convenient to defer to a later period of this first Part.

The case of the Carnea, B. C. 480[m], which were going on at Sparta, exactly at the same time of the moon, and the same time of the Julian year, both in the Spartan calendar and in the Attic, and still more that of the Hyakinthia, B. C. 479, celebrated on the same three days of the Spartan month Hecatombeus, and of the Attic month Hecatombæon, of the time being[n]—in our opinion would leave no doubt of this coincidence, even could no other proof of it be adduced. But as to this further proof—it happens in this instance that the true relation of the first lunar correction among the Spartans to the first among the Athenians may most clearly and most satisfactorily be determined *reflexively*; that is, by tracing and fixing the relation of the second correction among the former, to the second among the latter. By the former correction we understand the Metonic correction of the Spartans; and by the latter, the Metonic correction of the Athenians. And as the former was derived from the preexisting Octaëteric correction among the Spartans, and the latter from the preexisting one among the Athenians, the reader must see that it is a legitimate mode of proceeding, to begin with inquiring into the relation of the Spartan Metonic correction to the Attic, as an infallible test and criterion, if it can be ascertained, of the relation also of the Octaëteric correction of the one to that of the other. To this proof therefore we shall now proceed.

[l] Supra, vol. i. p. 34: also vol. iii. Appendix, Table i.
[m] Vol. i. 374. [n] Vol. i. 409.

## SECTION II.—*On the Metonic, or second, Correction of the Spartan Calendar, and its relation to the Attic.*

There are only two dates in terms of the Spartan calendar, compared with the Attic for the time being, any where in existence at present; but both occur in Thucydides, and both are consequently of the highest authority. One is the date of the truce, concluded between the Lacedemonians and the Athenians, B.C. 423, at the end of the eighth year of the Peloponnesian war[o]; the other, that of the peace, concluded between the same parties, two years later, B.C. 421, at the end of the tenth year of the war[p]: the former, the 12th of Gerastius in the style of Sparta, as the text of Thucydides stands at present, the 14th of Elaphebolion in that of Athens; the latter, the 27th of Artemisius in the Spartan calendar, the 25th of Elaphebolion in the Attic.

On considering these respective statements, the first remark which is liable to occur is this—That, assuming the equal truth of each, the same month in the Attic calendar, Elaphebolion, at the distance of only two years asunder, must have been corresponding to two different months in the Spartan; to Gerastius B.C. 423, to Artemisius B.C. 421: and at first sight that must appear something inconsistent. Nor can it be denied that chronologers hitherto have agreed to consider it an anomaly. And yet were this the only difficulty connected with these statements, a little reflection would suffice to convince us that this in particular might be more seeming than real. Whosoever has had any thing to do with the comparison of different calendars, (especially different lunar calendars,) must be aware from his own observation that an anomaly like this might be simply the effect of a difference of cycles, or of a different rule of administration; and especially of a difference in the rule of intercalation—a difference in the intercalary year in the order of the same cycle, or a difference in the intercalary month in the order of the same year—and that, under any of these circumstances, a given month in one calendar, the year *before* an intercalation, might be found agreeing with a certain month in another, and in the year *after* an intercalation, with a different one. The utmost therefore which could have been inferred in the present instance would have been that, even though the Spartan and the Attic calendar for the time being had agreed in every other respect, the intercalary rule of the one must have been something different from that of the other.

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[o] iv. 118, 119.

[p] v. 19.

The next observation however which occurs is *this*—That, assuming as before the integrity of the text of Thucydides in each of these instances alike, the 12th of the month at Sparta, B. C. 423, must have been the same with the 14th of the month at Athens; and the 27th of the month at Sparta, B. C. 421, with the 25th of the month at Athens: and this is a much greater inconsistency and a much greater difficulty than that which we have just adverted to. For on this principle, the style at Sparta B. C. 423 was two days *higher* than the style at Athens; and B. C. 421 it was two days *lower*: that is, the relations of the two calendars one to the other respectively, B. C. 423, two years afterwards must have been reversed, and become directly the contrary: and this would be so great an anomaly, and so repugnant to antecedent probability, that we may well hesitate to believe it could have been real. For what would be implied in the contrary supposition? what but that, in the space of these two years, either the style of the Attic calendar must have risen per saltum *four* days, or that of the Spartan must have dropped per saltum *four* days? and either of these effects, as the natural result of the administration of the calendar itself, and without the intervention of some violent change of its proper laws, in the space of two years' time, would have been absolutely impossible.

Such then being the apparent anomalies and the consequent difficulty involved in the *prima facie* construction of these statements; let us first of all inquire whether the authority of Thucydides is either actually or virtually given to the first of these coincidences (that of the 12th of Gerastius in the Spartan calendar for the time being with the 14th of Elaphebolion in the Attic). Thucydides has recorded the whole of the terms of the truce[q], just as they were agreed to at Athens, between the civil authorities of the Athenians and the plenipotentiaries of the Spartans and their allies: but the only important part of them for our purpose is the following: *Αἱ δὲ σπονδαὶ ἐνιαυτὸν ἔσονται. ἔδοξε τῷ δήμῳ. Ἀκαμαντὶς ἐπρυτάνευε, Φαίνιππος ἐγραμμάτευε, Νικιάδης ἐπεστάτει. Λάχης εἶπε, τύχῃ ἀγαθῇ τῇ Ἀθηναίων, ποιεῖσθαι τὴν ἐκεχειρίαν καθὰ ξυγχωροῦσι Λακεδαιμόνιοι καὶ οἱ ξύμμαχοι αὐτῶν. καὶ ὡμολόγησαν ἐν τῷ δήμῳ τὴν ἐκεχειρίαν εἶναι ἐνιαυτὸν, ἄρχειν δὲ τήνδε τὴν ἡμέραν τετράδα ἐπὶ δέκα τοῦ Ἐλαφηβολιῶνος μηνὸς κ᾽, τ. λ. σπείσασθαι δὲ αὐτίκα μάλα τὰς πρεσβείας ἐν τῷ δήμῳ τὰς παρούσας, ἦ μὴν ἐμμενεῖν ἐν ταῖς σπονδαῖς τὸν ἐνιαυτόν.* The natural inference from these words is, that these things were going on at Athens on the 14th of Elaphebolion; that this day, on which they were going on, the 14th of Elaphebolion in the Attic calendar, by common consent was to be the beginning of the truce—the first day of the year's truce; and that the mutual oaths and assurances, by which each of the parties were to bind themselves to the other for the observance of its covenants, as was naturally to be expected, were to be given and exchanged on the spot: and if so, on the 14th of Elaphebolion. Thucydides adds accordingly that this was done forthwith[z]: *Ταῦτα ξυνέθεντο Λακεδαιμόνιοι καὶ ὡμολόγησαν καὶ οἱ ξύμμαχοι, Ἀθηναίοις καὶ τοῖς ξυμμάχοις*; and if he further subjoins, as he proceeds to do, that it was done on the 12th of Gerastius, not on the 14th of Elaphebolion, this makes no difference to the day on which it was done. If the truce was ratified on both sides on the spot, and on the first day of the truce itself—the day of the ratification, the 12th of Gerastius, and the first day of the truce, the 14th of Elaphebolion, must have been the same*. With respect then to the question.

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[q] iv. 118.

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* Thucydides' words are actually, *Ταῦτα ξυνέθεντο κ᾽, τ. λ. μηνὸς ἐν Λακεδαίμονι Γεραστίου δωδεκάτῃ κ᾽, τ. λ.*; the literal version of which would be, that these assurances were tendered by the Lacedemonians and their allies to the Athenians and their allies, *On the 12th of a month, at Lacedemon, Gerastius*: i. e. as we should express it, more agreeably to our own idiom, on the 12th of the month Gerastius, at Lacedemon—on the 12th of Gerastius in the Lacedemonian style: the very turn of which phrase must imply that he was purposely dating the act now done in the style of the Spartan, not of the Attic calendar, because though done at Athens, and in the presence of the Athenians and their allies, it was done by Lacedemonians, or by those who were representing the Lacedemonians, and was binding the Lacedemonians and their allies to something in behalf of the

[z] iv. 119.

whether the testimony of Thucydides is either actually or virtually given to the identity of these two days, it seems to be impossible to come to any conclusion but this, That assuming the correctness of the reading of the 12th of Gerastius in his text at present, as much as that of the 14th of Elaphebolion, the absolute coincidence of one with the other has the support of his authority.

It remains then (as the only alternative left) to consider, whether the assumption on which we have hitherto proceeded, (that of the soundness of the text of Thucydides in each of these instances alike,) may not reasonably (or rather must not necessarily) be called in question. This is no new supposition. The learned have long agreed to suspect the genuineness of his numbers, in one of these instances, that of the Lacedemonian date B. C. 423—the 12th of Gerastius, instead of some other date, which would have been more consistent with the relation of the similar date to the corresponding Attic one, two years later; that of Artemisius 27 to Elaphebolion 25. Dodwell conjectured that the 12th of the month and the 14th in the former instance had got interchanged; and that every thing would be rendered consistent, by reading the 14th of Gerastius and the 12th of Elaphebolion, B. C. 423, like the 27th of Artemisius and the 25th of Elaphebolion, B. C. 421.

But this conjecture, in our opinion, is objectionable. i. The 12th of Gerastius stands too far off in the text of Thucydides from the 14th of Elaphebolion, for any such interchange of one with the other, to have taken place, except on purpose; though if they had followed each other immediately it might have been accidentally produced. ii. There is no variation of reading in either of these dates; especially in the first, that of the 14th of the Attic month—

Athenians and their allies. It was as proper for him under such circumstances to date the ratification of the agreement on the proper day of the Spartan month, as the beginning of the truce on the proper day of the Attic; and if he gives us to understand also, (or rather if it appears, as it does, on the face of the articles of the truce itself,) that the truce was concluded and ratified and began on the same day, the date of the ratification could not have been different from that of the truce; nor consequently the 12th of the Spartan month, if that was the date of the ratification, from the 14th of the Attic, if that was the date of the truce.

nor any reason to suppose that this in particular was ever read, or exprest, differently from what it is at present, that is, in full—*τετράδα ἐπὶ δέκα*—not in numerals merely, *ιδ′* or *τὴν ιδ′*. Dodwell's conjecture would have been antecedently less improbable, had the text always stood, *Ἄρχειν δὲ τήνδε τὴν ἡμέραν, τὴν ιδ′ Ἐλαφηβολιῶνος μηνὸς*, or simply, *ιδ′ Ἐλαφηβολιῶνος μηνὸς* — for that might accidentally have been confounded with *ιβ′* or *τὴν ιβ′*. iii. If the date of the truce was truly the 12th of Elaphebolion, it must have coincided with the stated date of one of the feriæ of the Dionysia *ἐν ἄστει*—which there is every reason to determine to Elaphebolion 11–12, as we have seen to a certain extent already[a], and hope to see further hereafter; and during the continuance of these solemnities (the principal of their kind in the Attic calendar), it may be taken for granted no public business would be transacted—not even the conclusion of a truce like this. Thucydides himself tells us, the peace, concluded two years after, (a more important event of the same kind,) was concluded only after the Dionysia *ἐν ἄστει* of the year—though directly after[b].

We agree however with Dodwell and others of the learned in attributing all the difficulty of these different statements of Thucydides to some corruption of his text, affecting either the Spartan or the Attic date in the first of these instances, but not in the second. And if the corruption is to be confined to the first of these instances, we cannot hesitate to conclude that the proper subject of it, as the text stands at present, must be the Spartan, not the Attic. There is no reason to suspect the truth of the Attic date in the second instance, Elaphebolion 25, nor that of the corresponding Spartan one, Artemisius 27; and if not, then the analogy of these two dates, B. C. 421, only two years later, would necessarily require Elaphebolion 14, and the 16th of the corresponding Spartan month, B. C. 423, only two years before. And this, it appears to us, is the real explanation of the anomaly, viz. that the 12th of Gerastius in this instance is a corruption of the text of Thucydides (of long standing indeed, yet still a corruption,) for the 16th; and a corruption originally produced by the accidental confusion of the sixteenth of the month written in numerals with the twelfth similarly written.

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[a] Supra, page 105 *n.*

[b] v. 20.

For let it be supposed that the text of Thucydides stood originally, Μηνὸς ἐν Λακεδαίμονι Γεραστίου ιϛ′ : how easily that might have been mistaken for Μηνὸς ἐν Λακεδαίμονι Γεραστίου ιβ′ no one needs to be told. By this correction however all the difficulty is removed. Restore the true reading of the joint date, B. C. 423, Elaphebolion 14 and Gerastius 16, and any appearance of inconsistency between it, and the joint date B. C. 421, Elaphebolion 25 and Artemisius 27 — vanishes*.

This preliminary question then having been disposed of, we shall proceed to shew how easily, on one supposition only —(that of the adoption of the Metonic cycle by the Lacedemonians, and its application to their preexisting Octaëteric calendar, B. C. 424—) all these statements may be reconciled together. And though for this purpose it would have been otherwise incumbent upon us to begin with proving that when they changed the cycle of the calendar they changed also the beginning of the year, and along with the change of the cycle and the beginning of their calendar, they changed also the place of the intercalary month—each of these positions, in order that we may not interrupt the course of our argument, may be taken for granted at present. The proofs of each will appear hereafter.

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* The revolt of Skione, two days later than the conclusion of this truce, and the question arising out of it, proves nothing of the relation of the two calendars, the Attic and the Spartan, to each other, at this particular point of time. It proves only that whatsoever was the date of the truce, Skione revolted two days later; on the 16th Elaphebolion, in the Attic style, if the date of the truce in that was the 14th; on the 14th Gerastius, in the Spartan, if the date in that was the 12th.

It may also be observed that Thucydides v. 19, where Artemisius 27 and Elaphebolion 25, B. C. 421, are compared together, the MS. which Mr. Bekker marks F, (a MS. of good authority,) has a various reading, Ἀρτεμισίου μηνὸς ἕκτη φθίνοντος (the 25th) instead of τετάρτῃ φθίνοντος (the 27th). But there can be no doubt that this must have been purposely introduced, in order to bring the Spartan date into a literal agreement with the Attic, Ἐλαφηβολιῶνος ἕκτῃ φθίνοντος; as if the two dates ought always to have been the same. In the Attic date, it does not appear there was ever any variation.

In order however to the proposed explanation, it is first of all to be observed that there was one great distinction in the mode and circumstances, *in* which and *under* which the Metonic correction superseded the old lunar calendar at Athens and at Sparta respectively, viz. *this;* That the Athenians adopted the Metonic *calendar*, the Lacedemonians only the Metonic *cycle.* In the former case the Metonic cycle was substituted for the Octaëteric; in the latter it was grafted upon it. The consequence of this distinction was that at Athens, B. C. 425, the style rose two days *per saltum* in comparison of what it was before; at Sparta, B. C. 424, it continued at first the same. The epoch of the Metonic correction at Sparta therefore could not fail to be two days behind that of the Athenians, from the first; and if it was so at first, it would necessarily continue so ever after.

The first Cyclical Period of 160 years, peculiar to the first Type of the Hellenic Octaëteris, came to an end B. C. 432; and the first cycle of the second Period would be completed, and the first year of the second would begin, on the first day of the first month in the Spartan calendar, B. C. 424—the name of which is not known, but its Julian date is known, January 19 at midnight. In like manner, though the name of the tenth month in the Spartan calendar may be unknown, its Julian epoch in the first year of the cycle is known; October 11. Let it be assumed then that this tenth month, B. C. 424, was made the first in the Metonic correction, which the Spartans were about to adopt; proofs of which assumption will appear hereafter. The date of the first Metonic cycle in the Spartan calendar being thus determined to October 11, B. C. 424, all that we are concerned with for our present purpose are the first three years of that cycle, B. C. 424–B. C. 422; and these, according to the usual rule of the Metonic cycle, would enter respectively as follows

*Metonic Correction at Sparta.*

Cycle i. 1–3.

| | | | | | Midn. | |
|---|---|---|---|---|---|---|
| Year i. | B. C. | 424. | 1 month. | October | 11. | |
| — ii. | — | 423. | —— | —— | 1. | Ex. 18. |
| — iii. | — | 422. | —— | September | 20. | |

Let us therefore, first of all, exhibit both the Spartan and the Attic calendar, B. C. 424–423, from the first month in the Spartan, and the corresponding one in the Attic, down to the month Elaphebolion in the Attic.

*Spartan Metonic Calendar.* Period i. Cycle i. 1.

*Attic Metonic Calendar.* Period i. Cycle i. 9.

| Month. | B. C. | Month. | Midn. |
|---|---|---|---|
| i. Oct. 11 | 424 | iv. Pyanepsion | Oct. 14 Ex. 27 |
| ii. Nov. 10 | | v. Mæmacterion | Nov. 12 |
| iii. Dec. 10 Ex. 3 | | vi. Posideon | Dec. 12 Ex. 30 |
| iv. Jan. 8 | 423 | vii. Gamelion | Jan. 10 |
| v. Feb. 7 Ex. 6. | | viii. Anthesterion | Feb. 9 |
| vi. March 8 | | ix. Elaphebolion | Mar. 11 Ex. 3 |

Let the vith month in this Spartan calendar be supposed to have been called Gerastius. We have then,

| At Sparta. | | B. C. | At Athens. | |
|---|---|---|---|---|
| Gerastius 1 | March 8 | 423 | Elaphebolion 1 | March 11 |
| Add 15 | 15 | | Add 13 | 12 |
| Gerastius 16 | March 23 | | Elaphebolion 14 | March 23 |

Secondly, let us exhibit the same two calendars, under similar circumstances, for B. C. 422–421 respectively.

*Spartan Metonic Calendar.* Period i. Cycle i. *3.

*Attic Metonic Calendar.* Period i. Cycle i. *11.

| Month. | Midn. | B. C. | Month. | Midn. |
|---|---|---|---|---|
| i. Sept. | 20 | 422 | iv. Pyanepsion | Sept. 22 |
| ii. Oct. | 20 Ex. 6 | | v. Mæmacterion | Oct. 22 |
| iii. Nov. | 18 | | vi. Posideon A | Nov. 21 Ex. 3 |
| iv. Dec. | 18 Ex. 9 | | Posideon B | Dec. 20 |
| v. Jan. | 16 | *421 | vii. Gamelion | Jan. 19 Ex. 6 |
| vi. Feb. | 15 Ex. 12 | | viii. Anthesterion | Feb. 17 |
| vii. Mar. | 15 | | ix. Elaphebolion | Mar. 18 Ex. 9 |

And the seventh month in this Spartan calendar being supposed to have been called Artemisius, we have as before,

| At Sparta. | | B. C. | At Athens. | |
|---|---|---|---|---|
| Artemisius 1 | March 15 | 421 | Elaphebolion 1 | March 18 |
| Add 26 | 26 | | 24 | 23 |
| Artemisius 27 | April 10 | | Elaphebolion 25 | April 10 |

The coincidence in each of these cases is as complete as can be desired. We perceive too in the latter of these instances, B. C. 422–421, howsoever inconsistent it might appear at first sight, that the same Attic month, Elaphebolion, should have been corresponding to one Spartan month, Gerastius, B. C. 423, and to another, Artemisius, only two years later, B. C. 421; that there was really nothing extraordinary in that fact. It is seen from this comparison that B. C. 421 there was a second Posideon in the Attic calendar, but no corresponding month in the Spartan; the consequence of which necessarily was that Posideon B in the Attic corresponding to the fourth month in the Spartan this year. Gamelion corresponded to the fifth, and Anthesterion to the sixth—the name of which we have assumed to have been Gerastius; and Elaphebolion, which B. C. 423 corresponded to the sixth month, i. e. Gerastius, was now corresponding to the next to Gerastius, that is, Artemisius, or the seventh. Had there been no second Posideon B. C. 421, it is clear Gerastius would have been found corresponding to Elaphebolion this year, as much as B. C. 423: and had there been an intercalary month in the Spartan calendar, between the first and the sixth month, this year, as there was in the Attic, between the fourth and the ninth, the same would have been the case. We may conclude therefore, with certainty, that if this year, B. C. 422–421, was intercalary in the Spartan calendar, (as by rule, being the *third* of the cycle, it must have been,) still the seat of the intercalary month must have been somewhere among the last six months, not the first six, of the calendar. It is evident also that if Elaphebolion, this third year, was corresponding to Artemisius, it was entirely *per accidens;* and that its proper correspondency was to Gerastius: from which it will follow that as Elaphebolion was originally the third month in the Attic calendar, so Gerastius must have been the third in the Spartan—and Artemisius as coming next to Gerastius must have been the fourth; answering to Munychion in the Attic, which was the fourth in that calendar too.

## SECTION III.—*On the change made in the beginning of the official year at Sparta, at the time of the adoption of the Metonic Correction.*

### i. Testimony of Thucydides.

The next point in the history of the adoption of the Metonic Correction at Sparta, B. C. 424, and its circumstances, which we shall endeavour to establish, is that of a change in the beginning of the official year, which must have been made at the same time. If this can be satisfactorily made out, it will follow that in this respect also the process of the reform or reconstruction of the calendar at Sparta trode closely in the steps of that which had taken place at Athens. The fact itself admits of being proved in the first instance by the testimony of Thucydides, and next by that of Xenophon; and the conclusion, deducible from both, may be confirmed by that of Timæus. We will begin with the testimony of Thucydides.

i. Now from this testimony it may be inferred that B. C. 432, the year before the breaking out of the Peloponnesian war, the official year at Sparta was not yet beginning at the autumnal equinox. For i. it appears that when the attempt was made on Platæa, Ænesias was ephor at Sparta[c]; and ii. when the Lacedæmonians and their allies were debating the question, whether the Athenians had violated the 30 years' truce, and consequently given good occasion for going to war with them, Sthenelaïdas was ephor[d]; and from the part which he took in that debate, it may be fairly inferred that he was the ephor of the year, the principal ephor, the ephor eponym of the time being: for he presided at the assembly; his speech was chiefly instrumental in deciding the question, and when they came to a decision upon it, he it was who put it to the vote[e]. iii. The surprise of Platæa was dated by Thucydides *μετὰ τὴν ἐν Ποτιδαίᾳ μάχην μηνὶ ἕκτῳ*, and consequently Ænesias was already in office *μηνὶ ἕκτῳ*, after that battle. iv. The assembly and debate at Sparta, at which Sthenelaïdas presided, were after the battle of Potidæa also. It follows that sometime in the course of six months at the utmost *after* the battle of Potidæa, and *before* the surprise of Platæa, Sthenelaïdas must have gone out of office, and Ænesias must have come in. The date of the surprise of Platæa, as we have seen[f], was Anthesterion 30 March 7, B. C. 431—and six months complete from the 30th of Anthesterion, B. C. 431, would go back to the 30th of Metageitnion September 11, B. C. 432; six months incomplete, to some time between the first and the 30th of Boëdromion, September 12 and October 10, the same year. The battle of Potidæa, fought some time in the sixth month before the surprise of Platæa, Anthesterion 30, B. C. 431, must have been fought some time in Boëdromion, between September 12 and October 11, B. C. 432. And if the meeting of the Lacedemonians and their allies, after that battle, and partly in consequence of it, going on at Sparta, when Sthenelaïdas was ephor, can be supposed to have been got together, and to have been going on, within a week or two after that battle, then Sthenelaidas might have gone out of office, and Ænesias might have gone in, at the autumnal equinox next ensuing; but if not, then, as Sthenelaïdas could not have gone out, so neither could Ænesias have come in, at or about the autumnal equinox, B. C. 432—and yet he was already in office, before March 7, B. C. 431. Sthenelaïdas then had gone out of office, and Ænesias had come in, at or about the winter solstice, B. C. 431—on the first day at least of the first month of the new year by the old Octaëteric Cycle, B. C. 431—which fell upon January 8. There is no proof consequently in Thucydides that the official year of the Spartans in the first year of the Peloponnesian war was yet beginning in the autumnal quarter; but very clear proof to the contrary that it was beginning exactly at the same time as the official year at Athens, viz. in the winter quarter.

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[c] ii. 2. [d] i. 86, 87–125. [e] Cf. Pausanias, iii. vii. 10: xi. 2.

ii. It appears from Thucydides also, that at the date of the peace, Artemisius 27 in the Spartan style, Elaphebolion 25 in the Attic, B. C. 421, Pleistolas was ephor at Sparta[g]; and that at the ingress of the ensuing winter the ephors under whom it was concluded were no longer in office, but others, instead of them, under whom it had not been concluded, and who were themselves opposed to it: Τοῦ δ' ἐπιγι-

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[f] Vol. i. 174.

[g] v. 19.

*γνομένου χειμῶνος, ἔτυχον γὰρ ἔφοροι ἕτεροι καὶ οὐκ ἐφ' ὧν αἱ σπονδαὶ ἐγένοντο ἄρχοντες ἤδη, καί τινες αὐτῶν καὶ ἐναντίοι σπονδαῖς*[gg]. The chronological winter of Thucydides (as we have often had occasion to observe, and as we have fully proved[h]) bears date from the autumnal equinox. This testimony therefore is express, that between the conclusion of the peace, Artemisius 27, Elaphebolion 25, April 10, B. C. 421, and some time later than the ingress of the chronological *χειμὼν* of Thucydides, the autumnal equinox, on or about September 27 the same year, there had been a change of magistrates at Sparta; the ephors under whom the peace was concluded had gone out, and others, under whom it was not concluded, had come in. But this was the *χειμὼν* of B. C. 421, three years after the change of the style, and the change of the beginning of the year also, B. C. 424. There is no inconsistency then between the inference which may be drawn from this testimony, and that which we drew from the last. The official year, B. C. 132, might still have been beginning in the winter quarter, and yet B. C. 421 be already beginning in the autumnal, if the calendar also was corrected meanwhile. The fourth year of the first Metonic cycle, at Sparta, would begin October 8. B. C. 421, by which time Thucydides' winter must necessarily have set in. There is no intimation in any part of his history, prior to this year, to authorize even a suspicion that the civil year at Sparta might possibly have been beginning in the autumn; and it must be considered a striking confirmation of our conclusions, that the first clear proof to that effect, which is met with in it, occurs as early as the beginning of the fourth year from the change of the style, and the change of the beginning of the year.

## ii. Testimony of Xenophon.

The testimony of Xenophon corroborates that of Thucydides. We must premise however that, as one of the circumstances of the change of the ingress at Sparta, B. C. 424, as much as of that of the ingress at Athens, B. C. 425, the magistrates who came into office on the first day of the year, by the old calendar, would go out of office on the first day of the year by the new, three months before their time. This year at Sparta, like the year before it at Athens, would be distinguished from every other before or after it, by having two sets of magistrates; one which came in at the usual time, in the winter quarter, and went out in the autumnal, having served only for nine months of their proper year, and another, which came in at or about the autumnal equinox, and served for the last three months by the old calendar, as the first three months of the new. On this principle, while there could be only eight years between B. C. 431 and B. C. 424 (both included), there would be nine ephors eponymi; or, what amounts to the same thing, the war, according to Xenophon, having lasted 27 years and six months, if we reckon in the ephor under whom it began and the ephor under whom it ended, though there could have been only 28 years from one of those terms to the other, there would be 29 ephors.

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[gg] v. 36

[h] Vol. i. 136. 166. 169. 171. 173.

Now Xenophon has left a list of these ephors[1]; of which the first is the ephor under whom the war, dated with the first invasion of Attica, B. C. 431, began, and the last is the ephor under whom, with the return of Lysander, after the reduction of Samos, B. C. 404, it was brought to a close: Τελευτῶντος τοῦ θέρους, ἐς ὃ, as he observes, *ὁ ἑξάμηνος καὶ ὄκτω καὶ εἴκοσιν ἔτη τοῦ πολέμου ἐτελεύτα, ἐν οἷς ἔφοροι οἱ ἀριθμούμενοι οἵδε ἐγένοντο, κ̀, τ. λ.* the list of names following, beginning with Æenesias, and ending with Eudicus. The reading of 28 years and 6 months is simply an error for 27 years 6 months; that being the actual duration of the war, from the end of Munychion, B. C. 431, where Xenophon dates its commencement, to the end of Boëdromion, B. C. 404, where he dates its termination. To fill up the intermediate period, he has given us 29 names, though the number of years was only 28; implying that there was one ephor eponym, in the mean time, more than years of office. These names we will exhibit after him, but in two lists—one for the first part of the interval, from B. C. 431 to B. C. 424, during which the old calendar was still in use; the other for the remainder, from B. C. 424 to B. C. 404, under the new: the ingresses in the former being dated with the first day of the year, according to the old cycle, those in the latter with the first, according to the new.

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[1] Hellenica, ii. iii. § 9. 10.

### *List of the names and order of Ephors Eponyms at Sparta, from B. C. 431 to B. C. 404.*

Table i. B. C. 431—B. C. 424.

| Years of the Peloponnesian war. | Names and order of the Ephors. | Ingresses. |
|---|---|---|
| i. B. C. 431 | 1 Ænesias [k] | January 8 |
| ii. 431 430 | 2 Brasidas | December 28 |
| iii. *429 | 3 Isanor | January 16 |
| iv. 428 | 4 Sostratidas | — 4 |
| v. 427 | 5 Hexarchus | — 23 |
| vi. 426 | 6 Agesistratus | — 12 |
| vii. *425 | 7 Aggenidas | — 1 |
| viii. 424 | 8 Onomacles | — 19 |

Table ii. B. C. 424—404.

| Years of the war. | Names and order. | Ingresses. |
|---|---|---|
| viii. B. C. 424 | 9 Zeuxippus | October 11 |
| ix. 423 | 10 Pityas | — 1 |
| x[l]. 422 | 11 Pleistolas | September 20 |
| xi. *421 | 12 Clinomachus | October 8 |
| xii. 420 | 13 Ilarchus | September 27 |
| xiii. 419 | 14 Leo | October 16 |
| xiv. 418 | 15 Chæridas | — 5 |
| xv. *417 | 16 Patesiadas | September 24 |
| xvi. 416 | 17 Cleosthenes | October 12 |
| xvii. 415 | 18 Lycarius | — 2 |
| xviii. 414 | 19 Eperatus | September 21 |
| xix. *413 | 20 Onomantius | October 9 |
| xx[m]. 412 | 21 Alexippidas | September 28 |
| xxi. 411 | 22 Misgolaïdas | October 17 |
| xxii. 410 | 23 Isias | — 6 |
| xxiii. *409 | 24 Aracus | September 24 |
| xxiv[n]. 408 | 25 *Euarchippus | October 13 |
| xxv[o]. 407 | 26 Pantacles | — 2 |
| xxvi[p]. 406 | 27 Pityas | September 22 |
| xxvii[q]. *405 | 28 Archytas | October 11 |
| xxviii[r]. 404 | 29 Eudicus * | — 1 |

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* There are difficulties connected with some of the names in this list,

[k] Cf. Thucydides, ii. 1.
[l] Cf. Thucyd. v. 19. 25.
[m] Thucyd. viii. 58.
[n] Hellenica, i. ii. § 1.
[o] Ib. iii. § 1.
[p] Ib. vi. § 1.
[q] Ibid. ii. i. § 10.
[r] Ib. iii. § 1.

Now we learn from the Hellenica[s] that Lysander's return, after the reduction of Samos, was later than the solar eclipse, at least, the same year, Sept. 3, B. C. 404[t]. The Attic Boëdromion entered the calendar the very next day, Sept. 4, and the first month, at Sparta, a month later, October 1. If Lysander had not effected the reduction of Samos before Sept. 3, his actual return after that event might have been a month later, so as strictly to be dated ἐπ' Εὐδίκου, who entered October 1 *. And up to this time, the duration of the war, as dated from the first invasion of Attica, 80 days after the surprise of Platæa, B. C. 431, whether by the Attic or by the Spartan calendar, might truly be reckoned at 27 years and nearly 6 months complete.

which however it does not concern us to explain at present. Euarchippus and Pantacles, for instance, who represent B. C. 408 and 407 respectively, appear from the context to be noticed historically B. C. 409 and 408 respectively. There is a difficulty too in the statement, ii. iii. § 1, respecting the ephor who was in office at the time of the appointment of the Thirty, B. C. 404. If this appointment took place immediately after the submission of Athens, Munychion 16, April 24, B. C. 404, this ephor must have been the 28th on the list, Archytas, not the 29th, Eudicus, as Xenophon, loc. cit. seems to imply. We must presume therefore that the allusion to the ephor at Sparta, and to the archon at Athens, which there occurs, was proleptical, and with a view to what followed, the affair of Phyle, and the restoration, both which came within the year of Eudicus, from October 1, B. C. 404, to September 19, B. C. 403; or we must suppose, with the learned in general, that these names which occur in the Hellenica, relating to the Olympiads, the archons, the ephors, for the time being, were some time or other interpolated by a later hand.

* From Lysias, xii. 72, it might be collected that Lysander with the fleet must have been at Samos, when Theramenes returned from his mission to Sparta, during the siege of the city, B. C. 404; and that the latter durst not make known the result of his mission until he had taken the precaution of fetching back Lysander with the fleet: cf. xii. 72–79. also, xiii. 8–25. &c–37.

Plutarch, Lysander xiv., supposes him to have made an expedition into Asia, and appointed δεκαδαρχίαι in different cities, and even to have ejected the Samians from their island, while the siege of the Piræus was going on. This latter supposition could not have been true, consistently with the testimony of Xenophon; but the former might have been, and would have the support of Lysias.

[s] ii. iii. § 4.

[t] Cf. supra, 67, 68.

### iii. Testimony of Timæus.

The chronological exactness of Timæus, according to Polybius[v], was one of the best known of his characteristics: Καίτοι διότι τοῦτ' ἴδιόν ἐστι Τιμαίου ... λέγω δὲ, κατὰ τὴν ἐν τοῖς χρόνοις καὶ ταῖς ἀναγραφαῖς ἐπίφασιν τῆς ἀκριβείας, καὶ τὴν περὶ τοῦτο τὸ μέρος ἐπιμέλειαν, δοκῶ πάντες γινώσκομεν[v]—as a specimen of which he refers to his mode of proceeding in comparing and adjusting together dates or epochs. Ὁ γὰρ τὰς συγκρίσεις ποιούμενος ἀνέκαθεν τῶν ἐφόρων πρὸς τοὺς βασιλεῖς τοὺς ἐν Λακεδαίμονι, καὶ τοὺς ἄρχοντας τοὺς Ἀθήνησι καὶ τὰς ἱερείας τὰς ἐν Ἄργει παραβάλλων πρὸς τοὺς Ὀλυμπιονίκας, καὶ τὰς ἁμαρτίας τῶν πόλεων περὶ τὰς ἀναγραφὰς τὰς τούτων ἐξελέγχων, παρὰ τρίμηνον ἐχούσας τὸ διαφέρον, οὗτός ἐστιν[x].

This last remark is important to the present question. There was, it seems, a well known difference, amounting to three months, between some of these various modes of reckoning and distinguishing time for historical purposes; the reigns and the ephorships at Sparta, the priesthoods at Argos, the archonships at Athens, and the Olympic victories at Elis.

Now, between two of these and the rest, it was impossible that there could have been any regular and stated difference; for instance, between the reigns of the kings of Sparta, or the succession of the priestesses at Argos. Each of these must have been reckoned from the demise of the preceding; but how long before, or how long after, a given point of time of any other kind, like the beginning of the official year at Athens or at Sparta, or the recurrence of a stated solemnity like the Olympic games, could not possibly be determined by any general rule. Though then it is unquestionably true that both the succession of reigns at Sparta and that of priestesses at Argos were used as chronological epochs, (the former by the historians of all times, among the Greeks, the latter by the older historians, Acusilaus, Hellanicus, and others, and even by Thucydides himself as late as the beginning of the Peloponnesian war,) it must be certain notwithstanding that neither of these could have been intended in this instance, as implying a stated and regular difference of three months in excess or in defect between them and the rest here enumerated also. Let us see then, in what sense and to what extent, this stated and regular difference would be applicable even to the rest.

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[v] Polybius, xii. 11, 4.

[x] Ibid. cap. 12, 1. cf. Suidas, Τίμαιος.

With respect to the Olympic year, it may be assumed at present, that, from the earliest to the latest times, it began at the same season, the season of midsummer. The Olympic æra consequently bore date from the summer solstice. The archontic year at Athens, under the old calendar, bore date at the winter solstice; under the new, at the summer solstice. This being the case, either there could have been no difference at all between the archontic year and the Olympic, or it must have been one of six months. There could have been no difference between them when both were beginning at the summer solstice; and there could not have been less than six months, while one of them was beginning at the winter solstice, and the other at the summer.

If then there was any foundation for the concluding remark of Polybius, about a difference of three months, insisted upon by Timæus, between some of these notes of time and the rest; it must have been intended of the succession of ephors at Sparta, compared with that of archons at Athens, or that of Olympic victors at Elis: and that will imply that there must have been three months' difference between the beginning of the official year at Sparta, and that of the official year at Athens, and that of the Olympic year at Elis. Consequently, if both these latter began at midsummer, the former must have begun at the autumnal equinox: or rather, whensoever these began the other must have begun just three months later. If then the month of the official ingress at Athens, by the Attic calendar, was Hecatombæon, at Sparta, by the same calendar, it must have been Pyanepsion; and this would be explained by the fact that, when the Metonic correction was adopted at Sparta, the beginning of the year was changed from the winter quarter to the autumnal, and the first month of the new calendar was appointed to be not the *ninth* of the old, which corresponded to Boëdromion, but the *tenth*, which answered to Pyanepsion. This epoch, B. C. 424, as we have seen, was October 11—just three days earlier than Pyanepsion 1 in the Attic calendar the same year, October 14; and just three months later than Hecatombæon 1, July 17. The official ingress at Sparta therefore, as so fixed at this time, began with being exactly three months later than that at Athens; and as long as both calendars continued to be regulated by the same cycle, it never could be otherwise. The Olympic games the same year, Olymp. lxxxix, were celebrated by rule from Parthenius 11–16, June 28—July 3: little more than three months also before October 11.

### SECTION IV.—*On the intercalary rule of the Spartan Metonic Cycle, and the change in the seat of the intercalary month, entailed by that Correction.*

If the date of the Metonic correction at Sparta was October 11, B. C. 424, it did not take place until after the expiration of the first complete cycle of the second period of the old octaëteris. No doubt then the usual intercalation must have taken place B. C. 425. No fresh intercalation would be necessary after that, before the third year of the new cycle, B. C. 422–421; the first intercalary year, in the cycle of Meton, according to its own laws.

This year then being assumed to have been intercalary according to rule—with respect to the next question, At what period, in the decursus of the calendar for that year, the intercalary month would be introduced; first, that it could not have been inserted in the usual place, after the twelfth month in the old calendar, and the third in the new, is proved by the fact, ascertained and established already, viz. that the same Attic month Elaphebolion, B. C. 424–423, was corresponding to Gerastius, and B. C. 422–421, to Artemisius[y]. Secondly, with respect to this question in general, we have often observed that it makes no difference to the principle of the intercalation in a lunar calendar, or to the end and effect proposed by it, whereabouts in the decursus of the calendar the intercalary month is introduced; provided it comes in only at the proper time, and when the law of the cycle requires it. And yet, as we have also observed, its most natural seat is at the end of the calendar. We had occasion also to observe that had Meton been undertaking the reconstruction of the calendar with the public sanction, when he proposed to change the beginning of the year he would probably have proposed to change the seat of the intercalary month; and if he made Skirrhophorion his last month, he would have made a second Skirrhophorion his intercalary month. It may be observed too that, had the Athenians adopted his correction as soon as proposed, they might have used his calendar from B. C. 432 to B. C. 430, just as he had published it; and in this year, B. C. 430, the first which would have been intercalary according to its own laws, they might either have retained the second Posideon, or introduced a second Skirrhophorion. But as they did not *de facto* adopt the correction until seven years after its publication, when there had been two intercalations already according to its proper rule, as prescribed by its author; it was too late to make any change in its intercalary system: and therefore, when the calendar was adopted at last, its intercalary rule was adopted with it.

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[y] See supra, page 187.

The case however was so far different at Sparta that, whensoever the Metonic correction was proposed there, it appears to have been done with the public authority. Nor was it the Metonic calendar which was then adopted, but the Metonic cycle; not the identical calendar which had been received at Athens the year before, but *one* like it—a calendar of their own, constructed on the same principles: a calendar too not substituted for the old octaëteris, but engrafted upon it, borrowing its epoch from it, and so far taking it up. Under these circumstances, when changes of other kinds, which could have emanated only from public authority, (such as that of the beginning of the year, and that of the official ingress,) were made simultaneously with the adoption of this new calendar, it was to be expected *a priori* that the same authority would transfer the intercalary month from the end of the old year, to the end of the new. And this, though an actual change of its place relatively to the natural year, would be no change relatively to the calendar, or to the end of the year.

Accordingly there is proof in Plutarch's life of Agis, that in the reign of this Spartan king just before his death, the regular seat of the intercalary month was the end of the official year, and the end of that year was still the same as at the first adoption of the Metonic cycle, B.C. 424—the close of the summer, and the beginning of the autumnal, quarter; from which state of the case we can scarcely fail to draw the inference that, when the beginning of the year was shifted from the winter solstice to the autumnal equinox, the seat of the intercalation was transposed also, in order that it might still continue to be the end of the year.

In this life of Agis Plutarch gives an account of an expedition of his from Sparta to the assistance of Aratus and the Achæan League[z], whose territories were menaced by an invasion of the Ætolians. The time of this expedition, it appears[a], was just after the harvest had been got in: Τοὺς καρποὺς σχεδὸν ἅπαντας συγκεκομισμένων ἤδη τῶν γεωργῶν: for which reason, as there was nothing now to be feared for the security of the crops, Aratus declined giving the enemy battle, and suffered them to go away unmolested. Harvest of both kinds, as we have seen[b], for the climate of the Peloponnese, and especially of Achæa, might be dated from the middle of June to the middle of August; and this expedition was probably going on at the beginning of August.

Now while Agis was absent on this service, Plutarch gives the following account of the conduct of Agesilaus, the ephor, at Sparta; who at first, from interested motives, had promoted the reforms of Agis, but by his abuse of the power and the influence thus obtained, proved the principal cause of his ruin at last: Ὁ γὰρ Ἀγησίλαος ἐφορεύων, ἀπηλλαγμένος οἷς ταπεινὸς ἦν πρότερον, οὐδενὸς ἐφείδετο φέροντος ἀργύριον ἀδικήματος, ἀλλὰ μῆνα τρισκαιδέκατον, οὐκ ἀπαιτούσης τότε τῆς περιόδου, παρὰ τὴν νενομισμένην τάξιν τῶν χρόνων ἐνέβαλε τοῖς τέλεσι καὶ παρέπραττε[c]. Nothing is here said of his doing this at a wrong time of the year; only at a wrong time of the period, or cycle. This act of his then proves that the ordinary seat of the intercalary month in the Spartan calendar was the end of the summer quarter, with which the act itself coincided: it proves too that the administration of the calendar belonged *ex officio* to the college of ephors: and this extraordinary intercalation itself having been intended for no other purpose but that of lengthening the official year, it proves further that the usual seat of the intercalary month was towards the end of the official year *. *Διέδωκε δὲ λόγον,* continues Plutarch [c], (sc. ὁ Ἀγησίλαος,) ὡς καὶ *αὖθις ἐφορεύσων*: in consequence of which, Leonidas, the king who had been not long before expelled for his opposition to the measures of Agis, was brought back again by the enemies of Agis and his party; and that return of Leonidas was very soon followed by the death of Agis: not however before the commencement of the next official year, as appears from the context of Plutarch [d].

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[z] Cap. xiii. xiv.

[a] Cap. xv.

[b] Vol. i. page 159. 163.

[c] Cap. xvi.

With regard to the particular year of these events, it is not necessary to the truth of the conclusion, thus deduced from the events themselves, respecting the intercalary rule of the calendar, for the time being, that we should be able to assign it. We observe however that Mr. Clinton, in his Fasti Hellenici [e], places the death of Agis some time between B.C. 243, the date of the liberation of Corinth by Aratus, and B.C. 240 or 239. Now by our Spartan Metonic calendar, this year, B.C. 243, answered to Period iii. 30, Cycle x. 11; and according to rule would be intercalary: and consequently an intercalation just before the ingress of this year, the end of the *tenth* year of the cycle, would have been irregular. But B.C. 243 was doubtless too early for the death of Agis. The next year, B.C. 242, just before the end of the *eleventh* year of the cycle, the intercalation would not have been irregular. For the same reason, the end of the thirteenth year, B.C. 240, would be intercalary by rule also. To judge then from this criterion, (the introduction of a month into the calendar at an irregular time,) the only two years between B. C. 243 and B. C. 239, (within which Mr. Clinton dates the death of Agis,) when any thing of this kind could have been done, would be B. C. 241, and B. C. 239; the former, Period iii. 31, the end of the 12th year of the cycle, the latter, iii. 33, the end of the 14th. At either of these times, the interposition of an intercalary month would have been informal and irregular: and of these two years, we incline to the opinion, that the true one was B. C. 239 *.

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* We say towards the end of the official year; for the truth turns out to be that the intercalary month in the Metonic cycle of the Spartan calendar, was the second Carneus: and the month so called in that calendar was not the twelfth month, but the eleventh. We are enabled to make this discovery from the consideration of the two cases of the Carnea, mentioned historically by Thucydides, B.C. 419 and 418: the circumstances of which we hope to examine on a future opportunity, when we come to treat of the Carnean Ennead.

[c] Cap. xvi.

[d] Cap. xviii.–xx. Cf. Cicero, de Officiis, ii. 23, 80. Also Agis, xvi. viii. xii.

[e] Vol. ii. p. 216. col. 2. (268.) Appendix, c. 3.

* The chronology of the Life of Agis, according to Plutarch, is involved in much perplexity. One thing however appears from his account; viz. that the interval, between the beginning of the reforms of Agis[1] and his death[2], must have been very short. The expulsion of his colleague Leonidas, by means of the contrivance of which he gives an account[3], was evidently effected just before the expiration of the year of the ephor Lysander[4]; and in little more than one year after that *he* must have been brought back, and Agis soon afterwards put to death. His recall clearly took place just about the end of the official year of Agesilaus[5]: and the ephors, who succeeded to him, and were already in office at the return of Leonidas, having first been ejected, and others, in the interest of Leonidas, elected in their stead[6], the death of Agis itself was the next event.

With respect to the expedition of Agis in the preceding summer, to the assistance of Aratus[7]; an expedition of his, with a similar object in view, is mentioned in the Life of Aratus also[8]: but from the comparison of the circumstances of this, with those of the expedition in the Life of Agis, (especially from the last sentence of cap. xv.) it must be concluded that the two expeditions belonged to distinct occasions, of which that in the Life of Aratus was the earlier. For on that occasion, Agis joined Aratus at Geranea; on the other, at Corinth. On this latter occasion there was no battle, the harvest only was saved, before the allies were dismissed by Aratus[9]: on the former, the Ætolians were allowed to enter the Peloponnese, and even to take Pellene; but after that were surprised by Aratus, and cut off with great loss: and this victory of his is spoken of as one of the most brilliant of his exploits, and as immortalized by one of the paintings of Timanthes. This occasion then in the life of Aratus must have preceded the beginning of the reforms of Agis; and probably belonged to B. C. 241.

With respect to the true date of their actual commencement; the contrivance referred to supra, in order to bring about the expulsion of the other king, Leonidas, is of critical importance; as will appear we trust

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[1] Cap. vi–xi.
[2] xvi–xx.
[3] Cap. viii–xi.
[4] Cf. cap. ix. xi.
[5] xvi.
[6] xviii.
[7] Cap. xiii. xiv. xv.
[8] Aratus, xxxi. xxxii.
[9] Agis, xv.

## SECTION V.—*On the names and order of the Months in the Spartan Calendar.*

*Spartan Calendar* *.

| | Type i. Octaëteric. Names of the Months. | Attic. | | Type ii. Metonic. Names of the Months. |
|---|---|---|---|---|
| i | Unknown | Γαμηλιών | iv | Unknown |
| ii | Ἠράσιος | Ἀνθεστηριών | v | Ἠράσιος |
| iii | Γεράστιος | Ἐλαφηβολιών | vi | Γεράστιος |
| iv | Ἀρτεμίσιος | Μουνυχιών | vii | Ἀρτεμίσιος |
| v | Φλυήσιος or Φλιάσιος | Θαργηλιών | viii | Φλυήσιος or Φλιάσιος |
| vi | Unknown | Σκιρροφοριών | ix | Unknown |
| vii | Ἑκατομβεύς | Ἑκατομβαιών | x | Ἑκατομβεύς |
| viii | Καρνεῖος | Μεταγειτνιών | xi<br>xi | Καρνεῖος A<br>Καρνεῖος B |
| ix | Καφάσιος | Βοηδρομιών | xii | Καφάσιος |
| x | Unknown | Πυανεψιών | i | Unknown |
| xi | Unknown | Μαιμακτηριών | ii | Unknown |
| xii A | Μναστήρ A | Ποσειδεὼν A | iii | Μναστήρ. |
| xii B | Μναστήρ B | Ποσειδεὼν B | | |

hereafter, when we come to treat of the Carnean Ennead, and its proper cycle. For the εὐθύνη revived on this occasion, and for the very purpose of getting rid of Leonidas, was regulated by this cycle; and supposing it to have been held at the end of one cycle of this kind, and just before the beginning of the next, it will be shewn hereafter that it would have been regularly in course in the month of August, B. C. 240. This therefore or soon after it must have been the time of the expulsion of Leonidas; and consequently some time before it the beginning of the reforms of Agis. The next year, B. C. 239, in the month of July, we should date his expedition to the assistance of Aratus; and in the month of August the same year, the introduction of the intercalary month by Agesilaus *extra ordinem:* the effect of which would necessarily be to protract his year from the beginning of October to the beginning of November. Very soon after, we may date the recall of Leonidas, the deprivation of the ephors lately elected, and the death of Agis—all before the end of B. C. 239 at least.

On this principle his death could not long have preceded the accession of Cleomenes, who was the son of Leonidas, and succeeded his father: and as he had reigned 16 years[10], either at the date of Sellasia, B. C. 222, or at that of his death in Egypt, B. C. 220†, he must have begun to reign either B. C. 238 or 237, or B. C. 236 or 235.

* The Julian Type of the Attic Octaëteris (vol. iii. Appendix, Table i.)

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[10] Plutarch, Cleomenes, xxxviii.

† Polybius (iv. 35, 8), B. C. 220, it is reckoned nearly three years since the flight of Cleomenes (to Egypt), which was immediately after the bat-

i. The first month in the Octaëteric, the fourth in the Metonic, calendar of the Spartans. The name of this month is unknown. It must however have corresponded to Gamelion in the Attic calendar; and from the peculiarity of the name, which (as we shall see by and by) appears to have been given to the last month in the calendar at Sparta, we consider it extremely probable, though it cannot be assumed for certain, that the first month in this calendar was called Γαμηλιὼν, for the same reason for which the last was called Μναστήρ. On this principle there was a Γαμηλιὼν in the Spartan calendar as well as in the Attic. And so there was in the Argive. And in all these calendars it seems to have been the first month; which is a strong argument that it must have been so called in each, for the same reason, viz. the still continuing, or still remembered, rule of domestic and public life, among the ancient Greeks, of celebrating marriages at the beginning of the year, and in the first month of their calendar [f].

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ii. The second month in the Octaëteric, the fifth in the Metonic, calendar. Ἠράσιος· μὴν παρὰ Λάκωσιν [g]. The existence of a month so called in the Spartan calendar is thus ascertained. It is observable that the breathing, assumed by this word in the text of Hesychius, is the smooth, Ἠράσιος, not Ἡράσιος: nor is there any reason to suppose Ἡράσιος or Ἡραῖος was ever read in this instance for Ἠράσιος. It cannot therefore have been derived from Ἥρα, the Doric form of the name of Juno, so as to have denoted the Mensis Junonius; though Ἡράσιος, as equivalent to Ἡρήσιος, formed from Ἥρη, would be agreeable to the analogy of ἡμερήσιος from ἡμέρη, or βιοτήσιος from βιοτή. And though Ἠράσιος could not according to any analogy have been derived from ἦρ, *ver*, or *spring*, yet it might have been so derived from ἤρασμαι, or ἤρασαι, the perf. of ἔραμαι. And in our opinion

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serves equally for the Spartan. The Metonic calendar of the Spartans is exhibited, among the other tables of the same kind, Appendix, Table x.

[f] Cf. vol. i. page 95.

[g] Hesychius.

tle of Sellasia, May 27, B. C. 222. The news of his death in Egypt arrived soon after; and then the Lacedemonians appointed two new kings: iv. 35. 9–14. cf. 81, 1. That he perished in Egypt in the summer of B. C. 220, see v. 34, 11—39, 6.

this is probably the true etymon of the name, as that of the first of the spring months in the Spartan calendar, answering in that capacity to Anthesterion in the Attic. Ἡράσιος therefore denoted the same thing as Ἐράσμιος—the desirable month, the delightful month—because of the beauties of external nature, which began to develope themselves anew, after the winter, in that month: and the ἠροσάνθεια[h], or ἠροάνθια, a festival celebrated by the women of the Peloponnese, in the season of flowers, and consequently at the beginning of spring, was probably celebrated in this month.

iii. The third month in the Octaëteric, the sixth in the Metonic, Γεράστιος. The existence of this month, and under this name, in the Spartan calendar, has been ascertained from the testimony of Thucydides; and its correspondence in that calendar to Elaphebolion in the Attic has been ascertained also.

With respect to the etymon; there is no various reading in his text of Γεραίστιος instead of Γεράστιος; yet Γεραίστιος was the form of the name in the calendar of Trœzen[i]. This month at Trœzen too was sacred to Posidon; and as Γεράστιος would obviously be derivable from Γέραστος, and Γεραίστιος from Γεραιστὸς, so both Γέραστος and Γεραιστὸς was the name of a promontory in Eubœa sacred to Posidon[k]; and the latter, as it may be inferred from the Orestes of Euripides[l], was that of some locality on the coast of Laconia, which probably stood in the same relation too. We reserve however the further explanation of this name for a future opportunity; observing merely that, whatsoever the etymon, the proper orthography, of the name in the Spartan calendar must have been Γεράστιος.

iv. The fourth month in the Octaëteric, the seventh in the Metonic, Ἀρτεμίσιος. The testimony of Thucydides has ascertained both the name and the order of this month also, as well as the corresponding month in the Attic calendar, Munychion. The name itself is derived from Ἄρτεμις: only as that of a month in a Doric calendar, and derived from the Doric form of Artemis in Greek, Ἄρταμις not Ἄρτεμις—

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[h] Hesychius and Phot. Lex. in voce.

[i] Athenæus, xiv. 44.

[k] Cf. the Etym. M. in Γέραστος and Γεραιστός.

[l] v. 990.

though it is Ἀρτεμίσιος in Thucydides, in its own calendar it was probably Ἁρταμίτιος. The name itself declares its relation to Artemis. None is of more frequent occurrence in the lunar calendars of the Greeks. Generally too, the month so called is seen to have occupied the same place in the natural year, whether in the civil calendar or not.

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v. The fifth month in the Octaëteric, the eighth in the Metonic. *Φλυήσιος...μήν τις.* This gloss occurs in Hesychius: and though he does not add that the month so called belonged to the Spartan calendar, we learn from other testimony that it did. *Φλιοῦς*[m]*...ὠνόμασται δὲ παρὰ τὸ φλεῖν ὅ ἐστιν εὐκαρπεῖν. Λακεδαιμόνιοι δὲ τῶν μηνῶν ἕνα Φλιάσιον καλοῦσιν, ἐν ᾧ τοὺς τῆς γῆς καρποὺς ἀκμάζειν συμβέβηκεν. ὤφειλε δὲ ἀπὸ τῆς Φλιοῦντος γενικῆς Φλιούσιος**. There cannot be much question that the month here called *Φλιάσιος* is the same which Hesychius calls *Φλυήσιος*: and if we may assume the soundness of this reading in his text at present, the probable etymon of that name may be illustrated as follows: *Φλοιός· τὸ καλούμενον λέπος...ἢ παρὰ τὸ φλῶ, τὸ ἀναπέμπω καὶ ἀναδίδωμι*[n]—*Φλῶ, τὸ γέμω καὶ εὐκαρπῶ. καὶ Φλεὺς ὁ Διόνυσος ἐν Χίῳ ὀνομάζεται παρὰ τὸ εὐκαρπεῖν*[o]. The word *χλόη* is explained as if the same with *φλόη*, and similarly derived: *Παρὰ τὸ φλέω, τὸ ἀναπέμπω, φλόη καὶ χλόη, ἡ ἐκ τῆς γῆς ἀναπεμπομένη καὶ αὐξάνουσα*[p]. Hesychius has a gloss on *ῥηξίφλοια· ῥήξαντα τὸν φλοῦν*: and Plutarch, in explanation of the epithet *ὑπέρφλοια*, applied by Empedocles to *μῆλα*, or apples, observes[q], *Τὸ γὰρ ἄγαν ἀκμάζειν καὶ τεθηλέναι φλοίειν ὑπὸ τῶν ποιητῶν λέ-*

* Cf. Apollonius Rhod. i. 115—

*Φλείας δ' αὖτ' ἐπὶ τοῖσιν Ἀραιθυρέηθεν ἵκανεν*—

and the Scholia: *Πόλις Πελοποννήσου ἡ Ἀραιθυρέα, ἐν ὁρίοις τῆς Σικυῶνος κειμένη, ἡ νῦν ὀνομαζομένη Φλιοῦσα, ἀπὸ Φλιοῦντος τοῦ Διονύσου καὶ Χθονοφύλης. καὶ αὐτὸς δὲ Διόνυσος Φλυοῦς ὠνομάζετο ἀπὸ τοῦ φλύειν τὸν οἶνον, ὅ ἐστιν εὐθηνεῖν.* cf. Hesychius: *Φλέω· Διονύσου ἱερόν·* and the Etym. M. in *Κρῖος...τὸ δὲ Φλίος (σημαίνει δὲ τὸν Διόνυσον) κ', τ. λ.* cf. also the Scholia on the Iliad, B. ad v. 571.

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[m] Stephanus, De Urbibus.

[n] Etym. M. in voce.

[o] Ibid. cf. also 189. 41. *Φλεὺς ὁ Διόνυσος.*

[p] Ibid. cf. Suidas in *Χλόη·* and the note.

[q] Symposiaca, v. viii. 3.

*γεσθαι.* And hence, Antimachus, speaking of the city of Corinth, described it as

*φλοίουσαν ὀπώραις* [r]—

and Aratus, in allusion to the different effects of the influence of Sirius on the vegetable world [s], has

*Καὶ τὰ μὲν ἔρρωσεν, τῶν δὲ φλόον ὤλεσε πάντα*—

that is, as Plutarch explains it, *Τὴν χλωρότητα καὶ τὸ ἄνθος τῶν καρπῶν.* And as Φλεὺς or Φλυεὺς, Φλυοῦς or Φλιοῦς [t], was one of the titles of Dionysos, as the type of the vegetable principle, especially of that of the sap in trees; so was *Φλοιὰ*, one of those of Proserpine, or the *Κόρη*, in the same relation to external nature; especially among the Lacedemonians: as we learn from Hesychius: *Φλοιάν· τὴν Κόρην τὴν θεὸν οὕτω καλοῦσι Λάκωνες.* And though, on this principle, it might have been supposed the name of this month would have been *Φλοήσιος* or *Φλοιάσιος*, rather than *Φλυήσιος*—this latter may be resolvable into a dialectical variation on the former; like Φλεὺς and Φλοῦς, as each the same name for *Διόνυσος*—and like Φλυὸς instead of *Φλόος*—as the name of one of the Titans, among the Athenians [v] *.

With regard to the order of this month in the calendar, it is determined by its site in the natural year. It appears from the name, and the etymon of the name, that it had a clear relation to the process of vegetation; not however as beginning, but as far advanced, and fast approaching to maturity. It could not therefore have been one of the spring months, the names of which in the Spartan calendar have been otherwise determined—the first to Ἡ*ράσιος*, the second to Γ*εράστιος*, and the third to Ἀ*ρτεμίσιος*. But it might have been the first of the summer months; and in our opinion it was so, according to the distinction of spring and summer, which was commonly made by the ancients[x]. The first of these summer months in the Attic calendar was Thargelion; and the first in the Spartan was this month Φλυήσιος, or Φλιάσιος. The explanation of the name, according to Stephanus, *παρὰ τὸ τοὺς τῆς γῆς καρποὺς ἐν αὐτῷ ἀκμάζειν,* would have applied with the utmost exactness to the state of the case in the Attic month Thargelion[y]; and if it was equally true of this Spartan month Φλυήσιος or Φλιάσιος, the site of both in the natural year must have been the same.

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* It may be considered doubtful indeed whether the actual name of this month in the Spartan calendar was *Φλυήσιος*, or *Φλιάσιος*. Hesychius does not affirm that the month *Φλυήσιος* was one of the Spartan months: and Stephanus does so affirm, that the month *Φλιάσιος* was. But whichever was more truly the name of the month, the etymon of the name, and the relation implied by it to the natural year, will be much the same. Stephanus himself derived this name of *Φλιάσιος* from Φλιοῦς; and Φλιοῦς, according to Hesychius, denoted *ἡ τῶν καρπῶν ἔκχυσις.*

[r] Cf. Sympos. viii. x. 3.

[s] Phænomena, 335.

[t] Cf. the Scholia ad Apollon. Rhod. i. 115: and Hesychius in Φλέω: Etym. M. in Κρῖος.

[v] Pausanias, iv. i. 4.

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vi. The sixth month in the Octaëteric, the ninth in the Metonic. The name of this month is unknown. Had Ἠράσιος, explained supra[z], been written Ἡράσιος, it might have been derived from Ἥρα Dorice for Ἥρη; and in that case we must have supposed that it was probably the name of the sixth month, in the old Octaëteric calendar, the ninth in the Metonic, as that which preceded Ἑκατομβεύς—and for that reason was appropriated to Ἥρα, in the sense of the moon, as Ἑκατομβεὺς was to the sun. In any case this sixth month in the old Spartan Octaëteris must have corresponded to Skirrhophorion in the Attic.

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vii. The seventh month in the Octaëteric, the tenth in the Metonic. Ἑκατομβεὺς, *μὴν παρὰ Λακεδαιμονίοις, ἐν ᾧ τὰ Ὑακίνθια*[a]. The resemblance of this Spartan name to the Attic Ἑκατομβαιὼν is self-evident. We cannot hesitate therefore to conclude that this month must have been so called in that calendar for the very same reasons as Hecatombæon in the Attic[b]. Hesychius added that the Hyakinthia were celebrated in it: and it confirms our conclusions respecting the relations of the Spartan to the Attic months hitherto, that B.C. 479, in the year of Platæa, the Hyakinthia[c] were going on upon the very same three days both of the Spartan Hecatombeus and of the Attic Hecatombæon.

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[x] Vol. i. p. 291 note.

[y] Vol. 1. p. 144 sqq.

[z] Page 203.

[a] Hesychius in voce.

[b] Supra, vol. i. 111. We are told indeed by Eustathius, ad Iliad. B. 581. 293. 34. after Strabo (viii. 4. ad fin.) that Laconia was once called Ἑκατόμπολις, and that τὰ Ἑκατόμβαια διὰ τοῦτο ἐθύετο ἐκεῖ κατ᾽ ἔτος: cf. also ad Dionys. Perieg. 419. But there is no reason to suppose that any such annual sacrifice gave occasion to the name of this month—which, as we contended before, could not have been regularly derived from ἑκατὸν and βοῦς—only from ἑκὰς or ἑκατὸς and βαίνω.

[c] Vol. i. 409.

viii. The eighth month in the Octaëteric, the eleventh in the Metonic. Καρνεῖος. It is well known that in all the Doric calendars there was a festival in honour of Apollo, surnamed Κάρνειος—and a month, in which it was celebrated, called after the festival itself Καρνεῖος [d]. There was a Carnean month in the calendar of Syracuse; which Plutarch tells us[e] corresponded to the Attic Metageitnion: and though that is no necessary argument of the relations of the same month in the Spartan calendar—yet we hope to shew hereafter that the Spartan Carneius also did properly correspond to the Attic Metageitnion, and was the eighth month in its own calendar originally, as Metageitnion was in the Attic. As the eighth month therefore in the old Octaëteric calendar it must have been the eleventh in the Metonic; and we have already adverted [f] to an interesting circumstance in the history of this month, in the Metonic correction at Sparta, viz. that, in the intercalary years of the cycle, a second Carneius was the proper intercalary month.

ix. The ninth month in the Octaëteric, the twelfth in the Metonic. Καφάσιος· μήν. This gloss also occurs in Hesychius [g]; and though nothing more is added, yet we are strongly of opinion that this too was one of the names of the Spartan months in particular, besides which scarcely any others occur in this Lexicon. Directly under this entry, there is another, Καφάν· Κηφήν: i. e. Fucus in Latin, the Drone-Bee in English. And since Καφὰν Dorice for Κηφὴν might undoubtedly have given birth to such an epithet as Καφάνσιος, or Καφάσιος—we propose it as a probable conjecture that the name of this month was so derived, from the natural phenomenon, observable in it; that of the expulsion of the drone-bee from the hives, which takes place at a stated time of the year, just after the hives are made up for the winter: as a consequence of which the drone-bee may be seen flying about, at that particular season, in great numbers; but at none other in the whole year. This time is generally that which precedes the autumnal equinox. On this principle, the month *Καφάσιος* must have been the month before the equinox, and consequently must have corresponded to the Attic Boëdromion, which stood in the same relation to it.

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[d] Cf. Pausanias, iii. xiii. 3: Scholia in Theocritum, v. 83.

[e] Nikias, xxviii.

[f] Supra, page 200 note.

[g] In voce.

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x. xi. xii. The names of the next two months, the tenth and eleventh of the Octaëteris, the first and second of the Metonic calendar, are unknown. They must however have corresponded to the Attic Pyanepsion and Mæmacterion. With regard to the twelfth month in the old Octaëteric, the third in the Metonic. calendar, a gloss occurs in Hesychius: *Μναστήρ· τῶν μηνῶν οὕτω καλεῖταί τις.* And this too being supposed taken from the Spartan calendar, it will follow that there must have been a month so called in that calendar. The name of this month, *μναστὴρ*, is evidently the Doric form of *μνηστήρ*; and *μνηστὴρ* or *μναστὴρ* could have no meaning but that of *procus* in Latin, and *suitor* in English. We have seen reason to conjecture that the first month in *this* calendar, as well as in the Attic and in the Argive, was called *Γαμηλιὼν*, and for the same reason in each; viz. the celebration of marriages in that month. If one month of the calendar, in any of these instances, was called the *marrying* month, it would be only consistent, and in character with that designation, that another should have been called the *wooing*, or *courting* month; and equally so, that, if the marrying month was the first in the calendar, this courting or wooing month should have been the last. On this point however every one must judge for himself.

## SECTION VI.—*On the verification of the Spartan Calendar; and on its transition into the Julian.*

With regard to any further confirmation of the account which has thus been given of the old Spartan Octaëteric cycle and calendar, the additional proofs which might be adduced are supplied by a branch of our subject, which, as we have already observed, is necessarily reserved for the second part of this work; the history of the Carnean Ennead, and that of the Hyakinthian. The Metonic calendar of the Spartans, in like manner, is capable of further illustration, by means of the Anabasis of Xenophon; the chronology of which upon examination is found to have been accommodated to this calendar, though the editors of Xenophon have never yet suspected that fact. The particulars however of this accommodation are too minute and circumstantial to be summarily stated: and must be reserved for the second Chapter of this Dissertation. We shall therefore conclude this account for the present, with a brief notice of any further change which this calendar may be supposed to have undergone, later than the point of time down to which we have brought its history: viz. B. C. 239.

In the same unpublished MS. of the Imperial Library, at Vienna, to which we had occasion to refer in the last Dissertation[h], a calendar occurs, entitled, *Μῆνες Λακεδαιμονίων —ἀρχόμενοι ἀπὸ Νοεμβρίου*: with the names and order of the months, as follows:—

*Δῖος, Ἀπιλλαῖος, Ἀΰτναῖος, Περίτιος, Δύστρος, Ξανθικὸς, Ἀρτεμίσιος, Δαίσιος, Πάνεμος, Λῶος, Γορπιαῖος, Ὑπερβερεταῖος.*

The same calendar, and with the same heading, as beginning in November, is found also in a MS. of the National Library, at Paris[i], along with several others, which, as far as they go, agree with those of the Viennese MS. so as to lead to the inference that one of these lists must have been copied from the other, or both have been compiled from the same sources: though of the two, the Viennese copy is the more perfect, and has more the appearance of an original.

These names of the months are not those of which we have just given an account. They are the names first and properly of the Macedonian lunar calendar, and secondly, and as derived from that, of the different forms of the Syro-Macedonian, of all which we hope hereafter to give a full account. With these names, those of the above list agree throughout; except that the second, *Ἀπιλλαῖος*, is slightly in error for *Ἀπελλαῖος*, and the third, *Ἀΰνναῖος*, more commonly

[h] Supra, 173. Cod. MS. Theologicus, No. xxxiv. (Lambec. lib. iii. 145.) fol. 355. p. 1.

[i] Codex Coislin. 224. fol. 375. 7 sqq.

and more correctly is Αὐδυναῖος, and the ninth, Πάνεμος, would more correctly also be written Πάνημος or Πάναμος. If these names then were ever those of the Lacedemonian calendar, it is manifest that they must some time or other have been substituted for the old and original names. And so far, there would seem to be no difficulty about this second list; for the mere substitution of one set of names for another (if there was only a sufficient reason for it) it might be supposed would be a very simple and easy process. But this Lacedemonian calendar, with the Macedonian names of the months instead of its own, began, it seems, in November; whereas the Metonic correction, derived from the old Octaëteric, as we have seen, began in October. The earliest Julian date of this Metonic correction was September 20, the latest, October 17 or 18; the proper or normal date was October 11. Under no circumstances could the head of this calendar, as at first constituted, have fallen in November.

If this Lacedemonian calendar then of later times was regularly derived from the Metonic, of which we have given an account, there would be no mode of accounting for the fact of its bearing date in November, except by supposing that the twelfth month had some time or other got into the place of the first, and the first into that of the second. And such being the case, it must be considered a singular, and at the same time a fortunate, circumstance, that the very thing which it would thus be necessary to suppose some time or other to have been done, has been left upon record by Plutarch, as actually done, on the occasion referred to, in the life of Agis, B.C. 239. The violence at that time done to the cycle by the irregular introduction of an *extra* month, between the xith and the xiith, would have the effect of advancing the first month, that very year, from October 6 to November 5; and if that effect was never after undone, by abstracting a month, or suppressing the usual intercalation, on some other occasion, in the regular course of things, the calendar would ever after begin a full month, or 30 days, later in every year of the cycle, than it had done before. Now that the effect was undone at the time, we are not told by Plutarch; and the appearance of this Lacedemonian calendar, so long after, bearing date in November, not in October, is reflexively an argument (almost a demonstrative argument) that it was not undone. And it is very conceivable that however irregular and however objectionable such an act might have been at the time, yet after it had once been done, and once produced its effect on the decursus of the months, the Spartans at the time, and even the enemies of Agesilaus themselves, might think it the least of two evils to let the reckoning of the calendar go on, as it had begun to do in consequence of this irregular proceeding, rather than attempt to restore the old course of things by another irregularity of a contrary kind.

If however it may be assumed that from B.C. 239 forward, every month in the Metonic calendar of the Spartans would begin thirty days later than before; then if they thought proper at any subsequent period to adopt the Macedonian names of the months, and even the Macedonian calendar, the change, which had thus taken place in the time of Agis, would only facilitate that adoption. The Macedo-Hellenic Type indeed of the Macedonian calendar bore date October 1, but the Macedo-Syrian bore date Oct. 30; and the first year of the proper period and proper cycle of that calendar in particular, and the forty-third year of the corresponding period, and the fifth year of the corresponding cycle, of the Spartan, as the comparison of the two together will shew, would always coincide: and if the Spartans had been so inclined, they might have adopted the Macedo-Syrian calendar, with the proper names of its months, instead of their own—only nine years after the innovation of Agesilaus, B.C. 230—which corresponded both to Period ii. 1 of the Macedo-Syrian calendar, and to Period iii. 43, Cycle xi. 5, of their own. In this year, the first of Dius in the former fell on October 30, and the first of the corresponding month in the latter on October 28; and there was only two days' difference between the proper style of the Macedo-Syrian calendar for the time being and the proper style of the Spartan: and possibly, if the Metonic reckoning at Sparta had gone on meanwhile, as it did at Athens, without any correction whatsoever, there might have been no difference at all—and the Julian epoch of Period iii. 43, Cycle xi. 5, instead of being October 28, as at first, might now have been October 30.

This Lacedemonian calendar of the Viennese MS. was no doubt a Julian calendar of its kind; and with respect to the ultimate transition of the Spartan Metonic calendar into the Julian, if it had been previously assimilated to the Macedo-Syrian, that might easily be effected. Nothing would be necessary for the purpose, except to take advantage of some year in which the first of Dius was falling on November 1—and that was regularly the case in the seventeenth year of the cycle. A. D. 15, the first year of Tiberius, was a year of this description; Period v. 17 of the Macedo-Syrian calendar, Period vi. 59 of the old Spartan Metonic calendar. And as Tiberius came to the throne on the 19th of August, Roman, that year, it is not improbable, much less impossible, that out of compliment to his accession and the beginning of a new reign, the Julian calendar might have been adopted at Sparta on November 1, the first of Dius, that very year—especially as the birthday of this emperor itself fell out in this month[j].

## CHAPTER II.

### *On the Chronology of the Anabasis of Xenophon.*

### SECTION I.—*On the year in which the Anabasis began; and on the length of time comprehended by it.*

The expedition of Cyrus the younger is dated by Diodorus Siculus[k], and also by Diogenes Laertius[l], in the archontic year of Exænetus or Xenænetus; which, by the ordinary rule, entered Hecatombæon 1, July 3, B. C. 401—according to the rule of Diodorus, who dated all these years of the archons of Athens from the same point of time as the consular years at Rome, (the kalends of the Roman January,) on or about the first of Gamelion, January 8, the same year. There can be no doubt that the expedition was begun in the spring, and it is equally certain that this spring was that of B. C. 401; for it is proved by its own testimony that its history comprehends as nearly as possible two years complete: and consequently, since it is brought to a close in the spring of B. C. 399, with the return of the usual season of military operations that year, and the arrival of Thimbro to take the command in Asia Minor against Tissaphernes, it must have begun at or about the same time, B. C. 401. The true date of the expedition then, strictly reckoned in the years of the archons, was the spring of the archontic year of Mico, the predecessor of Xenænetus; though, according to the rule of Diodorus, which dated the ingress of Xenænetus six months earlier than the first of Hecatombæon, B. C. 401, it might be reckoned to have begun in the year of Xenænetus. The fact of this rule of Diodorus, we take for granted at present, hoping to have an opportunity of proving and illustrating it more at large on a future occasion.

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[j] See supra, p. 115.

[k] xiv. 19.

[l] ii. vi. § xi. 55. Xenophon.

## SECTION II. — *On the Julian date of the beginning of the Expedition; and on the relation of this date to various Calendars of the time being.*

No date occurs in the history of the Anabasis, in terms of any calendar, known or unknown: and the absence of any such clue to the course and succession of its events, at first sight, would seem to give only too much reason to doubt beforehand of the probable success of the attempt to determine its chronology. It is however to be observed that though no actual date is found in the course of events through the whole of the period properly taken up by it, it is so particularly distinguished by the succession of days and nights, that, did we know only where and how to begin the computation, there would be no uncertainty in following it step by step, and assigning every distinct or principal event to its proper day. Nor can there be much doubt about this primary epoch itself. It must have been some day early in the spring of B. C. 401; and it is not difficult to determine the day itself.

With this view, we observe, first that the calendar which Cyrus himself must have made use of, it is on every account to be supposed, could not have been the Hellenic, in any of its forms or varieties then in being, but that of his own countrymen, the Persians—the Gjemschid correction of the primitive Persian calendar—of which indeed we have not yet had an opportunity of giving a circumstantial account, though we have said something about it in the first Part of these Origines[m]. The third cycle of the proper period of this correction (a period of 120 Julian years, dated from March 22, B. C. 702) began on the first of Dey-mah, March 22, B. C. 462: and in the year of the Anabasis, B. C. 401, the recession of the head of the calendar on March 22 amounted to sixteen days exactly, and the first of Dey was falling on March 6. *This* day, March 6, B. C. 401, the first of Dey-mah for the time being, we assume to have been the actual date of this celebrated expedition; the date at least of the departure from Sardes, of which more will be said by and by. And though, as simply thus stated, it may appear to be an arbitrary and therefore a precarious assumption, we shall find it so critically confirmed by a multitude of facts in the history of subsequent events, that there can be no reasonable doubt of its truth *.

We assume however that this was the day of the departure of the expedition from Sardes. It is manifest that in the Anabasis itself[n], the actual account of the expedition begins with that departure: and, as Sardes was the seat of the viceregal government, and the residence of Cyrus himself, there would be every reason to suppose that, preliminary to the expedition, all his forces would be assembled at Sardes, and when every thing was ready, all would set out from Sardes. Nor is there any thing to oppose to this very natural presumption, except the testimony of the general summary[o], which gives the number of stathmi or marches, and the sum total of parasangs or stades, traversed by the army, to the field of Cunaxa, as if from Ephesus, not from Sardes. But we shall see, as we proceed, that this is to be understood of the case of Xenophon in particular, who arrived at Ephesus while the rest of the army was in the act of assembling at Sardes; and travelled from Ephesus to Sardes only just in time to join it before it set out. It is still true that the march of all in conjunction began from Sardes; and on this day, as we shall see hereafter, March 6, B. C. 401.

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* It is a curious coincidence, that Major Rennell also, who knew nothing of the distinction of calendars to which we have alluded, or what reason there might be for preferring one of them to another—nevertheless, in his work on the Chronology of the Anabasis, was led, by the force of its own testimony and by the concurrent evidence of its facts and circumstances, to fix on this same day, March 6, as the beginning of the whole account. See his "Illustrations of the History of the Expedition," p. 281: 285.

[m] Fasti Catholici, i. 557: ii. 80.

[n] i. ii. 5.

[o] ii. ii. 6.

It is worth while then to begin with noting this *day*, in the style of the different calendars of the time being, which will be found to have any connection with the chronology of the Anabasis, and either to reflect light upon it, or to derive light from it. These are the Persian, the Armenian, the Attic, the Spartan, the Corinthian, the Ambraciot, and the Arcadian. We shall therefore exhibit the scheme of each of these, either for the whole, or for part of the period, embraced by the narrative; from which the reader will see to what day in each of these calendars respectively this Julian date of March 6, B. C. 401, was corresponding: viz. to the *first* of Dey-mah in the Persian, the *fourth* of the Aceliucz or Epagomenæ in the Armenian, the *thirtieth* of Anthesterion in the Attic, the third of the *sixth* month (Gerastius) in the Spartan, the *twenty-seventh* of the second month in the Corinthian and Ambraciot, and the *sixteenth* of the third month in the Arcadian.

*Persian Calendar.*

B. C. *401–400.

| Gjemschid Calendar. | |
|---|---|
| Dey-mah | March 6 |
| Behman-mah | April 5 |
| Esphendarmad-mah | May 5 |
| Phervardin-mah | June 4 |
| Ardibehisht-mah | July 4 |
| Churdad-mah | August 3 |
| Tir-mah | Sept. 2 |
| Murdad-mah | Oct. 2 |
| Shahrivar-mah | Nov. 1 |
| Mihir-mah | Dec. 1 |
| Aban-mah | Dec. 31 |
| Adur-mah | Jan. 30 |
| Musteraka | March 1 |

*Armenian Calendar.*

B. C. *401–400.

| | |
|---|---|
| Navasardi | March 8 |
| Huerri | April 7 |
| Sahmi | May 7 |
| Tre | June 6 |
| Kagots | July 6 |
| Arats | August 5 |
| Miehieki | Sept. 4 |
| Arieki | Oct. 4 |
| Ahki | Nov. 3 |
| Marieri | Dec. 3 |
| Margats | Jan. 2 |
| Hruetits | Feb. 1 |
| Aceliucz | March 3 |

*Attic Calendar.* — *Attic Calendar.*

B. C. 402–*401. — B. C. *401–400.

Cycle i. 12. — Cycle i. 13.

| | | | | |
|---|---|---|---|---|
| Hecatombæon | July 15 | Exemtile 15 | July 3 | Exemtile |
| Metageitnion | August 13 | | August 2 | —— 3 |
| Boëdromion | Sept. 12 | —— 18 | — 31 | |
| Pyanepsion | October 11 | | Sept. 30 | —— 6 |
| Mæmacterion | Nov. 10 | —— 21 | October 29 | |
| Posideon | Dec. 9 | | Nov. 28 | —— 9 |
| Posideon B | | | Dec. 27 | |
| Gamelion | January 8 | —— 24 | Jan. 26 | —— 12 |
| Anthesterion | February 6 | | Feb. 24 | |
| Elaphebolion | March 7 | —— 27 | March 26 | —— 15 |
| Munychion | April 5 | | April 24 | |
| Thargelion | May 5 | —— 30 | May 24 | —— 18 |
| Skirrhophorion | June 3 | | June 22 | |

*Spartan Calendar.*

B. C. 402–*401. — B. C. *401–400.

Period i. Cycle ii. 4. — Period i. Cycle ii. 5.

| Exemtile. | Month. | | | | Exemtile. | Month. | | | |
|---|---|---|---|---|---|---|---|---|---|
| 24 | i | Oct. | 9 | B. C. 402 | | i | Sept. | 27 | B.C.*401 |
| | ii | Nov. | 7 | | 12 | ii | Oct. | 27 | |
| 27 | iii | Dec. | 7 | | | iii | Nov. | 25 | |
| | iv | Jan. | 5 | B. C.*401 | 15 | iv | Dec. | 25 | |
| 30 | v | Feb. | 4 | | | v | Jan. | 23 | B. C. 400 |
| | vi | March | 4 | | 18 | vi | Feb. | 22 | |
| | vii | April | 3 | | | vii | March | 23 | |
| 3 | viii | May | 3 | | 21 | viii | April | 22 | |
| | ix | June | 1 | | | ix | May | 21 | |
| 6 | x | July | 1 | | 24 | x | June | 20 | |
| | xi | July | 30 | | | xi | July | 19 | |
| 9 | xii | Aug. | 29 | | 27 | xii | Aug. | 18 | |
| | | | | | | xiii | Sept. | 16 | |

B. C. 400–399. Period i. Cycle ii. 6.

| Exemtile. | Month. | | | | Exemtile. | Month. | | | |
|---|---|---|---|---|---|---|---|---|---|
| 30 | i | Oct. | 16 | B. C. 400 | | vii | April | 11 | B. C. 399 |
| | ii | Nov. | 14 | | 9 | viii | May | 11 | |
| | iii | Dec. | 14 | | | ix | June | 9 | |
| 3 | iv | Jan. | 13 | B. C. 399 | 12 | x | July | 9 | |
| | v | Feb. | 11 | | | xi | Aug. | 7 | |
| 6 | vi | March | 13 | | 15 | xii | Sept. | 6 | |

### *Corinthian and Ambraciot Calendar*, B. C. *401.

### Cycle xviii. 6.

| Days. | Months. | | Days. | Months. | |
|---|---|---|---|---|---|
| 29 | i | January 11 | 29 | vii | July 6 |
| 30 | ii | February 9 | 30 | viii | August 4 |
| 29 | iii | March 10 | 29 | ix | September 3 |
| 30 | iv | April 8 | 30 | x | October 2 |
| 29 | v | May 8 | 29 | xi | November 1 |
| 30 | vi | June 6 | 30 | xii | November 30 |

### B. C. 400.

### Cycle xviii. 7.

| Days. | Months. | | Days. | Months. | |
|---|---|---|---|---|---|
| 29 | i | Dec. 30 B.C.*401 | 29 | vii | June 25 |
| 30 | ii | Jan. 28 B.C. 400 | 30 | viii | July 24 |
| 29 | iii | Feb. 27 — | 29 | ix | August 23 |
| 30 | iv | March 28 — | 30 | x | September 21 |
| 29 | v | April 27 — | 29 | xi | October 21 |
| 30 | vi | May 26 — | 30 | xii | November 19 |

### *Arcadian Calendar*, B. C. 402–*401.

### Cycle xii. 4.

| Days. | Months. | | Days. | Months. | |
|---|---|---|---|---|---|
| 29 | i | Dec. 23 B.C. 402 | 29 | vii | June 17 B.C. 401 |
| 30 | ii | Jan. 21 B.C.*401 | 30 | viii | July 16 — |
| 29 | iii | Feb. 20 — | 29 | ix | Aug. 15 — |
| 30 | iv | March 20 — | 30 | x | Sept. 13 — |
| 29 | v | April 19 — | 29 | xi | Oct. 13 — |
| 30 | vi | May 18 — | 30 | xii | Nov. 11 — |

### B. C. *401–400.

### Cycle xii. *5.

| Days. | Months. | | Days. | Months. | |
|---|---|---|---|---|---|
| 29 | i | Dec. 11 B.C.*401 | 29 | vii | June 6 B.C. 400 |
| 30 | ii | Jan. 9 B.C. 400 | 30 | viii | July 5 — |
| 29 | iii | Feb. 8 — | 29 | ix | Aug. 4 — |
| 30 | iv | March 9 — | 30 | x | Sept. 2 — |
| 29 | v | April 8 — | 29 | xi | Oct. 2 — |
| 30 | vi | May 7 — | 30 | xii A | Oct. 31 — |
| | | | 30 | xii B | Nov. 30 — |

## SECTION III.—*On the division of the Chronology of the Anabasis into four Periods.*

The chronology of the Expedition however naturally divides itself into four principal periods. i. From the departure from Sardes to the day after the battle of Cunaxa. ii. From the day after the battle of Cunaxa to the apprehension of the generals of the Greeks. iii. From the apprehension of the generals to the departure from Cotyora; where Xenophon himself terminates both the *Ascent* and the *Descent* properly so called respectively. iv. From the departure from Cotyora to the end of the narrative. We propose to adopt this distribution; and to consider each of these periods in its turn. It shall be our endeavour, as far as may be, to follow the narrative, day by day, through each; to note down distinctly the days of marching and the days of resting; and to keep an account as we proceed of the sum of *stathmi*, and of that of *parasangs*, wheresoever both, or either, are specified—in order to compare the results at last with the details meanwhile; that is, the general and summary statements which Xenophon also subjoins at the end, with the particulars previously specified in the narrative itself. The edition of which we shall make use is that of Schneider[o]; and we shall follow implicitly the text of that edition.

## SECTION IV.—*First Part of the Chronology of the Anabasis; From the beginning of the march of Cyrus, March* 6, *B. C.* 401, *to the day after the battle of Cunaxa, the same year, September* 6.

i. From Sardes to the river Mæander[p], 3 stathmi, 22 parasangs, March 6–8.

From the Mæander to Colossæ, 1 stathmus, 8 parasangs, March 9. Halt at Colossæ 7 days, March 10–16.

Sum of stathmi 4, sum of parasangs 30, general reckoning 11 days, March 6–16 inclusively.

ii. From Colossæ to Kelænæ[q], 3 stathmi, 20 parasangs, March 17–19. Halt at Kelænæ 30 days, March 20—April 18.

Sum of stathmi 7, sum of parasangs 50, general reckoning 44 days, March 6—April 18 inclusively.

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[o] Oxonii e Typographeo Clarendoniano, MDCCCXXVIII.

[p] i. ii. 5.

[q] i. ii. 7–9.

iii. From Kelænæ to Peltæ[r], 2 stathmi, 10 parasangs, April 19 and 20. Halt at Peltæ 3 days, April 21–23.

Sum of stathmi 9, sum of parasangs 60, general reckoning 49 days, March 6—April 23 inclusively.

And here we meet with the first confirmation of our assumed date of the expedition. When Cyrus was come to Peltæ, Xenophon observes[s]: *'Ενταῦθα ἔμεινεν ἡμέρας τρεῖς, ἐν αἷς Ξενίας ὁ 'Αρκὰς τὰ Λύκαια ἔθυσε καὶ ἀγῶνα ἔθηκε. τὰ δὲ ἆθλα ἦσαν στλεγγίδες χρυσαῖ. ἐθεώρει δὲ τὸν ἀγῶνα καὶ Κῦρος.* The Lykæa it seems were celebrated during this stay at Peltæ. This feast was the principal one in the Arcadian calendar; and it appears from a subsequent statement[t], that more than half of the Greeks, in the service of Cyrus on this occasion, were Arcadians, or Achæans. No doubt this festival was celebrated by the Arcadian calendar, and on its proper days at this time in that calendar; and assuming that the Julian dates, to which these three days of the halt at Peltæ have been determined by the course of events, are correct, viz. April 21, 22, and 23, we perceive, from the scheme of the Arcadian calendar, proposed supra[v], that they coincided with the third, the fourth, and the fifth of the fifth month in that calendar. These *three* days, the *third*, and the *fourth*, and the *fifth*, of the *fifth* month, in the Arcadian calendar, at this time, were the stated dates of the Arcadian festival of the Lykæa, as we trust to be able to prove to the satisfaction of the reader, whenever we are permitted to treat of that institution. If so, this coincidence is a decisive confirmation of our previous dates; especially of the primary or epochal one, on which the rest depend, March 6, as the date of the departure from Sardes—the beginning of the expedition, the 47th day of which has thus brought us to the 21st of the Julian April, and to the stated date of the Arcadian Lykæa, the third of the fifth month in the Arcadian calendar of the time being, both at once.

iv. From Peltæ to the Κεραμῶν ἀγορὰ[x], 2 stathmi, 12 parasangs, April 24–26.

Sum of stathmi 11, sum of parasangs 72, general reckoning 51 days, March 6—April 25 inclusive.

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[r] i. ii. 10.

[s] i. ii. 10.

[t] v. x. 10. 16.

[v] P. 218.

[x] i. ii. 10.

v. From the Κεραμῶν ἀγορὰ to the plain of Caÿster[y], 3 stathmi, 30 parasangs, April 26–28. Halt of five days, April 29—May 3.

Sum of stathmi 14, sum of parasangs 102, general reckoning 59 days, March 6—May 3 inclusive.

The length of time which had now been taken up by the expedition was 59 days complete; two Persian months within one day, from the first of Dey-mah, March 6, to the first of Esphendarmad-mah, May 5. And now we find it observed[y], Καὶ τοῖς στρατιώταις ὠφείλετο μισθὸς πλέον ἢ τριῶν μηνῶν: from which it follows that *one* month's pay at least must have been due before they set out from Sardes on March 6—and consequently that the beginning of active service this year could not have been later than February 5, and in reality must have been earlier.

This date would be remarkable in the Greek calendar as that of the ἀρχὴ ἦρος, and the Ζεφύρου πνοὴ, and about the middle term between the winter solstice and the vernal equinox; but still more so, in the Persian,—as closely approximating to the first of Adur-mah, the xiith month in that calendar, which B. C. 401[z], fell on January 30, and to the first of the Epagomenæ, or Musteraka, the Pentas furtiva, (which in this period followed Adur-mah,) March 1. It is probable therefore that the mercenaries of Cyrus actually entered on the service of the year, on the first of this month, January 30; in which case a month and five days' pay would actually be due to them, before they set out from Sardes on March 6: and consequently three months and five days' pay on the first of Esphendarmad-mah, May 5. The arrival of Epyaxa, wife of Syennesis, the king or satrap of Cilicia[a], relieved Cyrus from the difficulty under which he was labouring, of satisfying the demands of his troops; and was followed by the issue of pay for four months: i. e. not only for the arrears, but for a month in advance, from the first of Esphendarmad-mah, May 5, to the first of Phervardin-mah, June 4*.

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* That the Grecian mercenaries were paid by the solar, not the lunar month, may be collected from the fact that when they were at Tarsus[1], Cyrus promised them half as much by the month as before; that is, ἀντὶ

[y] i. ii 11.

[z] Supra page 216.

[a] i. ii. 12.

[1] i. iii. 21.

δαρεικοῦ τρία ἡμιδαρεικά. The Daric being reckoned at 20 drachmæ, or 120 oboli, they were receiving pay previously at the rate of *four* oboli per day for every 30 days, i. e. every solar month of a calendar like the primitive; and now they were promised six per day—180 every 30 days. It was antecedently probable that such would be the case with Cyrus' mercenaries; that they would be engaged and paid *for* and *by* the Persian month, which was a month of 30 days: though it cannot be denied that a Daric a month might be the common rate of a soldier's pay even for the lunar month[2].

Plutarch, in the life of Kimon[3], recognises silver Darics, as well as gold ones: but the Daric is commonly represented as a gold coin: Δαρεικοί. . οἱ χρυσοῖ στατῆρες. ἐκλήθησαν δὲ, ὥς τινές φασιν, ἀπὸ Δαρείου τοῦ τῶν Περσῶν βασιλέως[4]—Νόμισμά τι ἦν χρυσοῦν, ὅπερ Δαρεῖος πρῶτος ἐπενόησεν. ἀπὸ γὰρ τοῦ Δαρεῖος Δαρειακὸς, καὶ κατὰ συγκοπὴν Δαρεικὸς[5]—Καὶ οἱ μὲν Δαρεικοὶ ἐκαλοῦντο στατῆρες . . . χρυσοῖ πάντες ὄντες[6]—Εἰ δὲ καὶ Δαρεικός τις εἶπεν, ὁ χρυσοῦς προσηκούετο[7]—Χρυσίον ἐπίσημον γενέσθω τοσοῦτοι Δαρεικοί[8]—With regard to its value: Δαρεικὸς στατήρ[9]. Δαρεικοὶ στατῆρες ἐκαλοῦντο, ἔχοντες δραχμῶν δύο ὁλκήν. ἐδύναντο δὲ δραχμὰς εἴκοσιν. οἱ δὲ πέντε Δαρεικοὶ μνᾶν ἐδύναντο (100 drachmæ). This is confirmed by the testimony of the Anabasis[10], where 3000 Darics and 10 talents are reckoned the same thing. Five Darics being = 1 mina, 300 Darics = 60 minæ = 1 talent, and consequently 300 × 10 Darics = 10 talents. The drachma being assumed = 7¾*d.* of our money, or 7·75 *d.* 7·75 × 20 = 155 *d.* = 12*s.* 11*d.*

The name of this coin may be supposed to have been derived from some Darius, or Δαρεῖος. But with respect to this Darius, whether he was a king of Persia, or a king of Media, Darius Hystaspis, or Darius the Mede, (the Cyaxares of Xenophon,) there is an important gloss in Harpocration[11]: Εἰσὶ μὲν χρυσοῖ στατῆρες οἱ Δαρεικοί· ἠδύνατο δὲ ὁ εἷς ταὐτὸν ὅπερ καὶ ὁ χρυσοῦς παρὰ τοῖς Ἀττικοῖς ὀνομαζόμενος. ἐκλήθησαν δὲ Δαρεικοὶ οὐχ ὡς οἱ πλεῖστοι νομίζουσιν ἀπὸ Δαρείου τοῦ Ξέρξου πατρὸς, ἀλλ᾽ ἀφ᾽ ἑτέρου τινὸς παλαιοτέρου βασιλέως. λέγουσι δέ τινες δύνασθαι τὸν Δαρεικὸν ἀργυρᾶς δραχμὰς κ΄, ὡς τοὺς ε΄ Δαρεικοὺς δύνασθαι μνᾶν ἀργυρίου[12].

The stamp on this coin was a τοξότης, or archer: and hence the saying of Agesilaus, so often repeated by Plutarch, that he had been driven out of Asia by 30,000 τοξόται; meaning 30,000 Darics, purposely distributed among the demagogues at Thebes, and elsewhere in Greece[13].

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[2] Cf. vii. vi. 1.

[3] Cap. x.

[4] Hesychius in voce.

[5] Etymologicon in voce.

[6] Pollux, ix. vi. 59. 1024.

[7] Ibid. vii. 24. 2. 102. p. 761.

[8] Lucian, iii. 260: Navigium seu Vota, 18. 21. Cf. 296. Dialog. Meretr. vii. 83.

[9] Anecdota, 237. 17.

[10] i. vii. 18.

[11] In voce.

[12] Cf. Schol. ad Ecclesiaz. 598; and Suidas, Δαρεικός.

[13] Cf. Artaxerxes, xx: Agesilaus, xv: Apophthegmata Laconica, Agesilaus, xl. Cf. generally also, in reference to this coin, Apophthegmata Regum, Artaxerxes, iv: Herod. vii. 28: Thucyd. viii. 28: Diodor. xiii. 104: Plutarch, Lysander, iv: Artaxerxes, v: De Fraterno Amore, xvi: Pollux, iii. xi. § 1. p. 311: Herod. iv. 166: Polyænus, iii. vii. Lachares.

vi. From the plain of Caÿster to Thymbrium[b], 2 stathmi, 10 parasangs, May 4 and 5.

From Thymbrium to Tyriæum[bb], 2 stathmi, 10 parasangs, May 6 and 7. Halt at Tyriæum 3 days, May 8–10.

Sum of stathmi 18, sum of parasangs 122, general reckoning 66 days, March 6—May 10 inclusive.

vii. From Tyriæum to Iconium[c], 3 stathmi, 20 parasangs, May 11–13. Halt of 3 days, May 14–16.

Sum of stathmi 21, sum of parasangs 142, general reckoning 72 days, March 6—May 16 inclusive.

viii. Through Lycaonia[c], 5 stathmi, 30 parasangs, May 17–21.

Through Cappadocia to Dana[d], 4 stathmi, 25 parasangs, May 22–24. Half of 3 days, May 25–28.

Sum of stathmi 30, sum of parasangs 197, general reckoning 84 days, March 6—May 28 inclusive.

ix. At the 'Εσβολὴ of Cilicia[e], one day, May 29.

Entrance into Cilicia, *τῇ ὑστεραίᾳ*[e], May 30.

General reckoning 86 days, March 6—May 30 inclusive.

Though no distances are specified in these last two instances, two days, we may suppose, must be added to the number of stathmi, or days of marching, as opposed to days of rest: which will thereby be increased to 32. The description of the plain of Cilicia, into which the army descended from the pass on the 30th of May, implies a time of the year, which would be agreeable to that date: 'Εντεῦθεν δὲ κατέβαινεν εἰς πεδίον μέγα, καλὸν καὶ ἐπίρρυτον, καὶ δένδρων παντοδαπῶν ἔμπλεων καὶ ἀμπέλων. πολὺ δὲ καὶ σήσαμον καὶ μελίνην καὶ κέγχρον καὶ πυροὺς καὶ κριθὰς φέρει[e]. It is not said that any of these were actually ripe at the time; yet there can be no doubt that the barley in particular, for this latitude, must have been fast approaching to maturity.

x. To Tarsus[f], 4 stathmi, 25 parasangs[f], May 31–June 3. Halt at Tarsus, 20 days[g], June 4–23.

Sum of stathmi 36, sum of parasangs 222, general reckoning 110 days, March 6—June 23 inclusive.

xi. From Tarsus to the river Sarus[h], 2 stathmi, 10 parasangs, June 24 and 25.

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[b] i. ii. 13.

[bb] Ibid. 14.

[c] i. ii. 19.

[d] § 20.

[e] § 21, 22.

[f] i. ii. 23.

[g] i. iii. 1. cf. Diodorus, xiv. 20.

[h] i. iv. 1.

To the river Pyramus[h], 1 stathmus, 5 parasangs, June 26.

To Issi[h], 2 stathmi, 15 parasangs, June 27 and 28. Halt at Issi, 3 days[i], June 29—July 1.

Sum of stathmi 41, sum of parasangs 252, general reckoning 118 days, March 6–July 1 inclusive.

xii. From Issi to the Pylæ Ciliciæ and Syriæ[k], 1 stathmus, 5 parasangs, July 2.

From the Pylæ Syriæ to Myriandrus[l], 1 stathmus, 5 parasangs, July 3. Halt of 7 days[ll], July 4–10.

Sum of stathmi 43, sum of parasangs 262, general reckoning 127 days, March 6—July 10 inclusive.

xiii. To the river Chalus and the Κῶμαι of Parysatis[m], 4 stathmi, 20 parasangs, July 11–14.

To the head of the river Daradax[n], 5 stathmi, 30 parasangs, July 15–19.

To Thapsacus on the Euphrates[o], 3 stathmi, 15 parasangs, July 20–22. Halt at Thapsacus 5 days[o], July 23–27 *.

Sum of stathmi 55, sum of parasangs 327, general reckoning 144 days, March 6—July 27 inclusive.

The description of the Paradise, garden, or park, of Belesis, governor of Syria, given in the account of the march to the river Daradax, where they arrived July 19, implies that the fruits of trees, Ὅσα ὧραι φύουσι, were now in their perfection; which could not fail to be the case for the climate of Syria: especially if, by the fruits of the ὧραι here alluded to, the productions of the ὥρα or ὀπώρα, strictly so called, were meant[p]: i. e. of the period in the natural year, comprehended between midsummer or the end of June, and the φθινόπωρον, or beginning of September.

At Thapsacus, the army had now got to the banks of the Euphrates; the breadth of which in that locality was four stades[q], or nearly half a British mile. The number of marches to this point from Tarsus, according to the preceding computation, was 19: though, when the army was still there, and hesitating to advance any further, Cyrus repre-

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* In the number of days, from the Pylæ Syriæ to Thapsacus (20, July 4–24), Diodorus agrees with Xenophon; xiv. 21. He also makes an halt of five days at Thapsacus.

[h] i. iv. 1. [i] § 2. [k] § 4. [l] § 6. [ll] § 7. [m] § 9. [n] § 10.
[o] § 11. [p] Cf. supra, vol. i. 296 sqq. *n.* [q] i. iv. 11.

sented the distance from that city to the Euphrates at 12 marches only[r], no doubt purposely at that time in order to deceive them.

We must suppose the Euphrates to have been crossed either on the *last* of the *five* days spent at Thapsacus, July 27, or the *first* of the *nine* days' march next ensuing, July 28. We will assume the latter. At the actual passage of the river, it is observed[s]: *Οὐδεὶς ἐβρέχθη ἀνωτέρω τῶν μασθῶν ὑπὸ τοῦ ποταμοῦ. οἱ δὲ Θαψακηνοὶ ἔλεγον ὅτι οὐ πώποθ' οὗτος ὁ ποταμὸς διαβατὸς γένοιτο πεζῇ εἰ μὴ τότε, ἀλλὰ πλοίοις κ̀, τ. λ. ἐδόκει δὲ θεῖον εἶναι, καὶ σαφῶς ὑποχωρῆσαι τὸν ποταμὸν Κύρῳ ὡς βασιλεύσοντι.* But the true reason no doubt was partly the dryness of the season previously, partly and principally because Cyrus was crossing the river after the subsidence of the floods, produced every year by the melting of the snows on Mount Taurus, between the vernal equinox and the summer solstice: for the stated season of the rise of the river from that cause at present appears to be the end of April and the beginning of May; and it could not have been materially later at this time *. By the 28th of July at least it is morally certain the river must long have ceased to be affected by this cause; and might be found almost as low as in the nature of things it was capable of being: and we may justly look upon this coincidence also as another remarkable confirmation of the truth of our cardinal date, March 6, and of the accuracy of the details of the expedition, deducible from that epoch, given hitherto.

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* Ammianus Marcellinus, xxiv. 8. (A. D. 363.) the Euphrates and the Tigris were both found overflowing from the melted snows, about xvi kal. Junias, May 17: Quodque liquentibus jam brumæ pruinis omne immaduerat solum, et ruptis riparum terminis aucti inhorruere torrentes — Libanius, also, i. 597. 2. xviii. Ἐπιτάφιος, observes, of the same time and occasion: Πολὺς ὢν ὁ ποταμὸς Εὐφράτης καὶ πολλῶν ποταμῶν ἀντίρροπος, μικρὸς μὲν οὐδέποτε μέγιστος δ' αὐτὸς αὑτοῦ γίνεται τῶν ἠρινῶν ὄμβρων λυόντων εἰς ὕδωρ τὴν ἐν Ἀρμενίᾳ χιόνα τοῦ χειμῶνος οἰκοδομηθεῖσαν· οἱ δὲ περὶ αὐτὸν γεωργοὶ διώρυχας ἔνθεν καὶ ἔνθεν κατατέμνοντες ὁπόσα Αἰγύπτιοι τῷ Νείλῳ χρῶνται καὶ οὗτοι τῷ ποταμῷ. Cf. Amm. Marc. xviii. vii. 178.

On this subject, Mr. Grote (History of Greece, ix. 42, 43, note,) quotes from the Report of Col. Chesney on the Euphrates (p. 5), that the period of the greatest height in the waters of the river, near that part of its course where it was crossed by Cyrus, is from May 21–28 (new style, May 9–16 old style); and the period when lowest, the middle of November: and according to Mr. Ainsworth, there were only 21 inches of water at Thapsacus, from October 1841 to February 1842. (Travels in the Track, &c. p. 72.)

Of the accounts of the Tigris and the Euphrates by the ancients, see Procopius, De Bello Persico, i. 17. p. 82. 5—18: p. 84. 19–85. 22. It cannot

[r] i. iii. 20. i. iv. 17, 18.

xiv. From the Euphrates to the river Araxes[t], 9 stathmi, 50 parasangs, July 28—August 5.

Sum of stathmi 64, sum of parasangs 377, general reckoning 153 days, March 6—August 5 inclusive.

Here, it is said[t], there were Κῶμαι πολλαὶ, μεσταὶ σίτου καὶ οἴνου: for which reason they staid there *three* days, August 6–8, Καὶ ἐπεσιτίσαντο. This raises the general reckoning from 153 to 156 days, March 6 to August 8 inclusive. The harvest no doubt must have been over in these parts by August 8; but the grain might be found laid up in store in great abundance.

xv. Through the desert of Arabia, with the Euphrates on their right, to the city Corsote on the river Mascas[v], 5 stathmi, 35 parasangs, August 9–13. Halt of 3 days[v], August 14–16.

Sum of stathmi 69, sum of parasangs 412, general reckoning 164 days, March 6—August 16 inclusive.

xvi. From the city Corsote to the Pylæ, the Euphrates still on their right[x], 13 stathmi, 90 parasangs, August 17–29.

Sum of stathmi 82, sum of parasangs 502, general reckoning 177 days, March 6—August 29 inclusive.

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be denied that they speak of the annual rise of both these rivers, as if it coincided with midsummer, and the rising of Sirius for those latitudes. Cf. Amm. Marc. xxv. 6, only four days after July 1, of the Tigris: Tumentemque jam canis exortu sideris amnem ostendens: and Polybius, ix. 43, 4, of the Euphrates: Οὗτος δὲ καὶ πλεῖστος γίγνεται τῷ ῥεύματι κατὰ κυνὸς ἐπιτολήν: also Pliny, H. N. v. 21, and Solinus, xxxvii. 2: both of whom date the rise in the 20th degree of Cancer; i. e. 20 days after the summer solstice.

On this subject, see Major Rennell, Illustrations, &c. pag. 62. 77; and in particular, 276 sqq. 278: the result of whose inquiries is that the Euphrates begins to swell in April, and attains to its height in June, and then falls so rapidly that by the end of July it may well be supposed to have been in the state in which it was when Cyrus crossed it.

[t] i. iv. 19. [v] v. 1–4. [x] § 5.

Of these stathmi, some, it is said[y], were very long ones, Ὁπότε ἢ πρὸς ὕδωρ βούλοιτο διατελέσαι ἢ πρὸς χιλόν: the march, in fact, all the time being over the desert: yet on one occasion mention is made of στενοχωρία, and of the obstruction of the carriages in particular by πηλὸς, clay or mud[z]. At the end of one of them also[a], and as the context implies the last, took place the quarrel between the soldiers of Meno and those of Clearchus. The next day[b], when the army resumed its march, which on this principle must have been August 30, the 83rd stathmus, understood as the same thing with the 83rd day of marching, the 178th of the general account, traces of the king's army began first to be perceived: and these troops of his, it is said, as they went on, burnt up καὶ χιλὸν καὶ εἴ τι ἄλλο χρήσιμον ἦν, that came in the way[c]. This means hay, and any thing of that kind—which might have served for fodder—but not grass; which at this time of the year and for this locality could not have been found—and which would have required χόρτος or βοτάνη, not χιλός. The same day too the treachery of Orontes was detected and punished[d], probably early in the day; so that between these two events, the first discovery of the traces of the royal army, early this day, and what afterwards occurred with Orontes, little or no progress perhaps was made in the actual advance of the army, and yet a day was taken up, which must enter into the general account.

xvii. Through Babylonia[e] from Pylæ[f], 3 stathmi, 12 parasangs, August 31 to September 2.

Sum of stathmi 86, sum of parasangs 514, general reckoning 181 days, March 6—September 2 inclusive.

In the third or last of these stathmi, as Xenophon relates[c], Κῦρος ἐξέτασιν ποιεῖται τῶν Ἑλλήνων καὶ τῶν βαρβάρων, ἐν τῷ πεδίῳ, περὶ μέσας νύκτας· ἐδόκει γὰρ εἰς τὴν ἐπιοῦσαν ἕω ἥξειν βασιλέα σὺν τῷ στρατεύματι μαχούμενον. This review would take place after the day's march was over. Consequently, at midnight, September 3. Its taking place at that time, at first sight, might be thought to imply that there was a

[y] i. v. § 7.
[z] § 7, 8.
[a] § 11–16.
[b] i. vi. § 1.
[c] i. vi. § 1.
[d] § 1–11.
[e] vii. 1.
[f] v. 5.

moon: but the moon, September 2 or 3, was only three or four days old, having been new August 31, as the Attic date of that day, Boëdromion 1, would imply. This however is no difficulty. It would be sufficiently light at this season of the year, for the climate of Babylonia, even at midnight, to hold a review like this, without the assistance of the moon; and that would be otherwise the most convenient time for it, partly because of the greater coolness of the air, and partly that it might not interfere with the next day's march: for it appears to have been Cyrus' rule to devote the earliest part of the day, from morning to the *ἄριστον*, to the day's march *.

After the review, *ἅμα τῇ ἐπιούσῃ ἡμέρᾳ αὐτόμολοι παρὰ μεγάλου βασιλέως ἥκοντες*[g] *κ`, τ. λ.* That is, this day, Sept. 3, the 182nd of the general account.

xviii. *Ἐντεῦθεν,* i.e. From the field of the review[h], 1 stathmus, 3 parasangs, September 3.

Sum of stathmi 87, sum of parasangs 517, general reckoning 182 days, March 6—Sept. 3, inclusive.

*Ἐνταῦθα,* observes Xenophon[i], that is, at the end of this day's march, *Κῦρος, Σιλανὸν καλέσας τὸν Ἀμβρακιώτην μάντιν, ἔδωκεν αὐτῷ δαρεικοὺς τρισχιλίους, ὅτι τῇ ἑνδεκάτῃ ἀπ' ἐκείνης τῆς ἡμέρας πρότερον θυόμενος εἶπεν αὐτῷ ὅτι βασιλεὺς οὐ μαχεῖται δέκα ἡμερῶν*[k]. Now *this* day, by the above reckoning, having been clearly Sept. 3, the *eleventh* day before it, the *tenth*, exclusive of it, must have been August 24. And with respect to *this*, some remarkable coincidences may be pointed out.

i. It appears from the Ambraciot and Corinthian calendar[l] that August 24 was the 21st of the viiith month in that calendar, and September 3 the first of the ixth. So that this sacrifice of Silanus took place on the first day of the last decad of the month. Moreover, the month was plenus, and had ten days complete from the 21st to the 30th. We have no certain proof indeed to offer that this calendar was the Ambraciot of the time being. But it was certainly the Corinthian; and Ambracia was a colony of Corinth[m], which had always preserved a good understanding with the mother city[n], and at that very time was closely connected with it[o]: so that there is every reason to presume the calendar of Corinth must have been that of Ambracia also.

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* Of the numbers of the army, at this time, both Greeks and barbarians, cf. i. vii. 10: and with those of the former in particular compare i. ii. 9, before, and v. iii. 3, afterwards.

[f] i. v. 5.
[g] vii. § 2.
[h] vii. 14.
[i] § 18.
[k] Cf. v. vi. 18.
[l] Page 218.

ii. The 24th of August, by the Persian calendar this year, was the 22nd of the sixth month, the name of which was Churdad-mah; and the proper designation of that day in the same calendar was Bâd, and it was the day before the third Persian Sabbath, in every month; so that it was not an unlikely day to have been selected for this sacrifice, whether Silanus was consulting the will of the gods on this occasion by command of Cyrus, or of his own accord.

September 2, on the other hand, was the first of the seventh month, Tir-mah, in which the autumnal equinox, or Nauruz of autumn, fell out as regularly as the vernal equinox, or Nauruz of spring, in Dey-mah. The name of the first day of every Persian month was Ormùzd, or Hormùzd, taken from that of the good principle; the name of the second was Béhman, borrowed from that of the chief of the seven Amshaspands, or principal Izeds. Cyrus seems to have expected his brother would give him battle on one of these two days, if at all: and he might have thought so, if one of them was sacred to the supreme principle, and the other to the chief of his creatures; besides being in this instance the first and second of the month appropriated to the sun, and the most important in the calendar, next to Dey-mah.

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xix. It is evident that what passed on this occasion between Cyrus and Silanus must have passed at the end of the day; which so far illustrates both the ordinary Persian and the ordinary Grecian rule of the reckoning of the day, as ending with sunset at least. Τῇ ὑστεραίᾳ is next mentioned[p]; a day of marching, the 88th of marching, the 183rd of the general account, both, September 4; but with no specification of distance. Τῇ τρίτῃ is next mentioned[q], a day similarly employed, but with no statement of the distance, any more than before: though, from a subsequent allusion[r], it might be inferred that the native forces, under Ariæus, marched *three* or *four* parasangs this day. Nothing however is said of the progress of the Greeks; and we should infer from that silence, both on this day and the day before, that the distance which they might actually have marched was too slight to be taken into account: the reason being that, as they were hourly in expectation of a battle, they were obliged to proceed very leisurely and in good order. The day itself is clearly September 5, the 89th of motion as such, the 184th of the general reckoning, from March 6 inclusive to September 5 inclusive.

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[m] Strabo, x. 2. 331, 332.

[n] Cf. Thucyd. i. 38.

[o] Cf. ibid. iii. 114.

[p] i. vii. 19.

[q] § 20.

On this day too the battle at last took place; in which, though the Greeks were victorious over the force opposed to them, Cyrus lost his life. But this is a part of the narrative[s] in which we are concerned only with the date; and that is clearly determined to September 5, the 184th day of the march from Sardes until now. We may advert however, consistently with our other purposes, to the circumstances which preceded the battle.

It is observed of this day's march[t], Καὶ ἤδη τε ἦν ἀμφὶ ἀγορὰν πλήθουσαν, καὶ πλησίον ἦν ὁ σταθμὸς ἔνθα ἔμελλε καταλύσειν: from which it appears that the march was expected to be over by the time which the Greeks called the ἀγορὰ πλήθουσα, or ἀγορᾶς πληθώρα: and that, for this season of the year, so near to the autumnal equinox, would have been about 9 A. M. This passage too, being compared with another, at the end of the day[v], will imply that the news of the approach of the royal army must have been received before the usual time of the ἄριστον, or morning's meal; consequently when Cyrus and his men were unprepared for battle, and were obliged to get ready for action before they had broken their fast. We have midday mentioned[x], even after this, before the enemy were yet in sight; and then δείλη[x], which in the idiom of Xenophon often denotes the turn of day, the time immediately after noon[y], ere the first symptoms of the approach of a large army began to be descried in the distance, as described in the well known passage of the Anabasis[z]. The battle therefore took place strictly in the afternoon. Xenophon mentions himself for the first time on this occasion[a], in the account of the short interview which he had with Cyrus just before the action began. It appears to have been over about sunset[b]; i.e. a little before 6 P.M.—the Greeks having returned from the field to their encampment *ἀμφὶ δόρπιστον*, which means the last meal in the day, the same with the *δεῖπνον*, the usual time of which was after sunset; and the next night also is noticed in its turn[c].

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[r] i. x. 1. cf. ii. ii. 3. 7, 8. from which it appears it took the Greeks the whole of the time from nightfall to midnight to march the same distance.

[s] i. viii. 8—x. 19.

[t] viii. 1.

[v] x. 17. 19.

[x] viii. 8.

[y] cf. x. 15-19.

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XX. The notes of time next specified are these: *Ἅμα τῇ ἡμέρᾳ*[d]—the morning of the day after the battle, Sept. 6, the 185th of the general account: *Περὶ πλήθουσαν ἀγοράν*[e]—cir. 9 A.M. the same day: *Ἡλίου δύνοντος*[f]—sunset, cir. 6 30 P.M. *Ἐπεὶ σκότος ἐγένετο*[g]—nightfall: and *Ἀμφὶ μέσας νύκτας*[h]—midnight, when Clearchus with the Greeks arrived *εἰς τὸν πρῶτον σταθμόν*—that is, the encampment which they had left on the morning of the battle, Sept. 5, and where they rejoined Ariæus and the native forces, whose escaping thither was mentioned on the day of the battle[i]. This arrival at midnight, Sept. 6, would be virtually Sept. 7.

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We have now completed the review of the chronology of the first part of the Anabasis, from the commencement of the expedition to the day of the battle of Cunaxa. And here we find Xenophon interposing the first of his general statements[k]; which we must therefore compare with our own account of the details, as given hitherto: *Ἀριθμὸς δὲ τῆς ὁδοῦ, ἣν ἦλθον ἐξ Ἐφέσου τῆς Ἰωνίας μέχρι τῆς μάχης, σταθμοὶ τρεῖς καὶ ἐννενήκοντα, παρασάγγαι πέντε καὶ τριάκοντα καὶ πεντακόσιοι, στάδιοι πεντήκοντα καὶ ἑξακισχίλιοι καὶ μύριοι. ἀπὸ δὲ τῆς μάχης ἐλέγοντο εἶναι εἰς Βαβυλῶνα στάδιοι ἑξήκοντα καὶ τριακόσιοι.* That is, the whole length of the march is reckoned at 93 stathmi, 535 parasangs, 16,050 stades: and in these numbers, the parasangs (each reckoned at 30 stades[l]) are equal to the number of stades, but the number of stathmi (each reckoned at five parasangs) is not equal to the number of parasangs, for 93 × 5 = 465 only: so that, if the specified number of parasangs is correct, the army must have marched more than 5 parasangs a day, though less than 6.

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[z] i. viii. 8.

[a] viii. 15. cf. ii. v. 37: iii. i. 4.

[b] i. x. 15.

[c] x. 15: 17–19.

[d] ii. i. 2. cf. § 3, sunrise.

[e] § 7.

[f] ii. ii. 3.

[g] § 7.

[h] § 8.

[i] i. x. 1. cf. viii. 1: x. 1: ii. i. 3.

[k] ii. ii. 6.

[l] Cf. Herod. ii. 6. also.

It is however to be observed that, according to our own reckoning, the sum total of parasangs, up to the 87th day of motion, the 182nd of the general account, Sept. 3 (after which they ceased to be specified) was 517[m]: and between this and 535 the difference is just 18. Again, the sum total of stathmi, according to our reckoning also, up to the day of the battle, and inclusive of the march of that day, was 89; between which and 93 the difference is 4. We have therefore in *our* general account *four* stathmi less than Xenophon included in *his*, and 18 parasangs in *our* general account of the distance, less than he reckoned in his: and *four* marches and 18 parasangs, at the rate of five parasangs a day, are nearly in proportion one to the other.

We are therefore in a condition to account for the difference. We have traced both *our* marches and *our* distances from Sardes; but Xenophon reckoned his from Ephesus: and it may be inferred from his own testimony[n] that, though he arrived at Sardes in time to set out with the army, he had previously travelled from Ephesus. It appears too from Herodotus[o] that the distance from Ephesus to Sardes was commonly estimated at 540 stades; which, at the rate of 30 stades to a parasang, would be 18 parasangs, the number required to make our general account of distances the same with Xenophon's. It appears too both from Herodotus[p] and from the Hellenica[q] that this distance from Ephesus to Sardes was not less than three days' journey for an ordinary traveller; so that for a soldier, and one travelling with military equipments, it might be reckoned at four: and four marches are all that we want to equalize the number of marches in our account to Xenophon's. It is clear then that there is no difference between these calculations—that both are the same, if ours is reckoned from Sardes, and Xenophon's from Ephesus; that 89 stathmi and 517 parasangs from Sardes are just the same as 93 stathmi and 535 parasangs from Ephesus. On the same principle, the date of the expedition, if supposed to have begun from Ephesus, would be four days earlier—March 2; but the date of the battle, Sept. 5, and every other between the departure from Sardes, March 6, and that day, would be just the same *.

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[m] Supra p. 228

[n] ii. ii. 6: iii. i. 8.

[o] v. 54.

[p] v. 54.

[q] iii. ii. 11.

* The general accuracy of the reckoning of *σταθμοὶ*, for the latter part of the march, is confirmed by the observation of Ariæus, in his conference with Clearchus on the night of their junction, Sept. 7, at midnight[1]: *Ἑπτακαίδεκα γὰρ σταθμῶν τῶν ἐγγυτάτω οὐδὲ δεῦρο ἰόντες ἐκ τῆς χώρας οὐδὲν εἴχομεν λαμβάνειν.* These 17 were no doubt intended of the number specified, i. v. 5 : vii. i. 14 : 13 + 3 + 1, or 17 in all. Diodorus is of no assistance; as he ceased to particularize days after the departure from Thapsacus[2]: only, when Cyrus was at Tarsus, and his Grecian followers were hesitating about proceeding any further, he gave us to understand it was reckoned a four months' journey for an army, to the parts of Upper Asia[3]: *Διαβεβόητο γὰρ ἡ μὲν ἕως Βάκτρων ὁδὸς οὖσα στρατοπέδῳ τετραμήνου.*

The sum total of stades from Ephesus to Cunaxa, 16,050, divided by 93, the number of stathmi also, gives an average of nearly $172\frac{1}{2}$ daily, as long as the army was in actual motion: and that, at the ordinary rate of ten stades to one British mile, would be 17 British miles and upwards, daily, at the rate of 8 to one Roman, would be 21 Roman miles and upwards, daily. Both these would be excessive, and contrary to the experience of military movements, whether in ancient or in modern times alike; which would not admit of an average of more than 14 or 15 Roman, 11 or 12 English, daily[4]. And though every other day of the whole march, on this principle, must have been a day of rest, (91 at least out of 184, the entire number of days from Ephesus to Cunaxa,) that will not relieve the difficulty, or make any difference to the average rate of marching daily, which must still have been 17 English miles every day, or as much more on some days as less on others.

This question however is connected with many others. First, What was the exact measure of the stade of Xenophon, and what the proportion of his stade to his parasang? The latter indeed seems to have been assumed by him as that of 30 to 1, or 30 stades to one parasang. But the absolute length of his stade may still be considered a doubtful point. Secondly, What reliance can be placed on his distances in every instance, whether as exact measures, or only approximate ones, whether as taken from actual measurements, or only conjectural? In repeated instances, from the nature of the case, they would seem to have been only conjectural, or taken from hearsay, as, in one instance, the distance of Cunaxa from Babylon, 360 stades, clearly was; and which Plutarch[5] more truly represents at 500. These are questions however which may be left to the reader to decide for

[1] ii. ii. 11. [2] xiv. 21. [3] xiv. 20. [4] Cf. our F. Catholici, i. 252. *n.*
[5] Artaxerxes, viii.

We shall therefore conclude this survey of the first part of the chronology of the Anabasis with subjoining the date of the battle in the different calendars, exhibited supra[r]: the *fourth* of Tir-mah (the seventh month) in the Persian, the *second* of Michicki (the seventh month) in the Armenian, the *sixth* of Boëdromion in the Attic, the *eighth* of the twelfth (Καφάσιος) in the Spartan, the *third* of the ninth in the Corinthian and Ambraciot, the *twenty-second* of the ninth in the Arcadian.

### SECTION V.—*Second Part of the Chronology of the Anabasis; From Sept. 6, the day after the battle of Cunaxa, to October 30, the day of the seizure of the Generals.*

i. The notices of the day after the battle have been already mentioned[s]; and that day properly closed the first part of the chronology of the Expedition: but as it was employed in moving and marching, and Xenophon himself, as we shall find, takes it into account among the number of days so employed from the beginning to the end of the Descent, we must do the same, and reckon Sept. 6 accordingly the first day of marching upon the Descent, in opposition to the Ascent, as well as the 185th of the general account.

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ii. Sept. 7, second day of marching, the 186th of the general reckoning. First, the morning[t]; then δείλη, or the afternoon[v]: afterwards ὀψὲ[x], nearer to evening; lastly, ἅμα τῷ ἡλίῳ δυομένῳ, sunset, and προϊούσης τῆς νυκτὸς ταύτης[x], night. It appears[y] that ὑποζύγια (beasts of burden, cattle in general,) were grazing at this time in the open air; which implies that

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himself. They do not concern the chronology of the Expedition, so long as the sum total of stathmi, or days of march, and sum total of days of rest, (both together the sum total of the time taken up by the Expedition,) are allowed to have been correctly stated. Yet we may observe that, according to Colonel Chesney, as quoted by Mr. Grote[6], the entire distance from Sardes to Cunaxa was 1265 geographical miles; the division of which by 89, the number of marches, according to our reckoning, would give an average of 14·2 to each.

Cf. however on this subject Major Rennell, Ch. i. Preliminary observations, 3–13.

[r] Page 216.
[s] Page 230, 231.
[t] ii. ii. 13. cf. ii. iii. 1.
[v] § 14. 19. 17.
[x] § 16.
[y] § 15.

[6] Vol. ix. p. 19–22. *n.*

pasture was still to be found: also[v], that the night was dark soon after sunset: and Sept. 7, Boëdromion 8, the moon was only eight days old, and would set soon after midnight *.

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iii. *Ἅμα δὲ ὄρθρῳ*[z], and then *ἅμα ἡλίῳ ἀνατέλλοντι*[a], Sept. 8. The Greeks this day were conducted to some *κῶμαι*, in which there was *σῖτος πολὺς καὶ οἶνος φοινίκων*[b]. It was consequently the third of marching, the 187th of the general account. And here they remained *three* days[c], Sept. 8–11: 187–190 (both inclusive) of the general reckoning.

On their way to these villages they had to pass over certain *διώρυχες*, or canals, which were found to be full of water[d]; on which Xenophon observes: *Πολὺ δὲ μᾶλλον ὁ Κλέαρχος ἔσπευδεν, ὑποπτεύων μὴ αἰεὶ οὕτω πλήρεις εἶναι τὰς τάφρους ὕδατος· οὐ γὰρ ἦν ὥρα οἵα τὸ πεδίον ἄρδειν*: and if that means that seed-time for these parts had not yet arrived, such must have been the case on September 8 †.

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iv. After this, we have the coming of Tissaphernes[e]; which could not have been earlier than Sept. 12: and then *τὴν ὑστεραίαν*[f], Sept. 13; and *τῇ τρίτῃ*[f], Sept. 14, when he came again: which bring the reckoning down from Sept. 11–Sept. 14, from the 190th to the 193d of the general account, both included.

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v. *Μετὰ ταῦτα*, (i. e. after Sept. 14,) they are represented as again waiting for Tissaphernes, *Ἡμέρας πλείους ἢ εἴκοσιν*[g]: Sept. 14–Oct. 5, the 193d to the 214th day at least. His coming is mentioned § 8: and may be dated October 5 itself.

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vi. The march having been resumed, we have *three* stathmi to the wall of Media[h], but no mention of parasangs, October 5–8—from the 3d to the 6th of marching—from the 214th to the 217th of the general account.

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* Plutarch, Artaxerxes, xi. xiii, would imply that there was no moon on the night of the battle of Cunaxa, though the moon was then six days old. Xenophon however does not imply that.

† It is on this day also, Sept. 8, the day of the arrival at these *κῶμαι*, that the allusion occurs to the fruit of the palm, or dates, laid up there; ii. iii. 15: to which Major Rennell attaches much importance as a note of time, indicative of the first week of September. See Illustrations &c. p. 278, 279.

[v] ii. ii. 17. 19. [z] ii. ii. 21. [a] iii. 1. cf. ii. ii. 18. [b] ii. iii. 14. [c] § 17. [d] ii. iii. 10–13. [e] § 17. [f] § 25. [g] ii. iv. 1.

vii. From thence to the city of Sittake near the Tigris, 2 stathmi, 8 parasangs[i], October 8–10. Sum of stathmi or marches 8, sum of parasangs 8, general reckoning 219 days. There was a paradise or park near this city full of trees[k]. The morning of the next day is mentioned[l].

viii. From the Tigris to the river Physcus and the city of Opis[m], 4 stathmi, 20 parasangs: Oct. 10–14. Sum of stathmi 12, sum of parasangs 28, general reckoning 223 days.

ix. To the *κῶμαι* of Parysatis *διὰ τῆς Μηδίας*[n], 6 stathmi eremi, 30 parasangs: October 14–20. Sum of stathmi 18, sum of parasangs 58, general reckoning 229 days.

x. Ἐντεῦθεν, with the Tigris on the left[o], 5 stathmi, 20 parasangs: Oct. 20–25. After this, they arrived at the river Zabatus[p] *; but as we apprehend on the last of the five stathmi in question, October 25. And here they remained *three* days: October 25–28. Sum of stathmi 23, sum of parasangs 78, general reckoning 237. March 6–October 28 inclusive.

In the course of these three days, Ὑποψίαι μὲν ἦσαν, observes Xenophon[q], *φανερὰ δ' οὐδέμια ἐφαίνετο ἐπιβουλή.* When therefore we read next of the explanation with Tissaphernes, sought by Clearchus[r], of which that wily Persian took advantage to mature his schemes for the destruction of the generals, we cannot understand it of an earlier date than the *fourth* day after the arrival at the Zabatus, October 29, the 238th of the general account. Consequently, *τῇ ὑστεραίᾳ*, on

* This river still retains the name of the Zab: but there are two so called, the lesser and the greater Zab—the former of which is not noticed by Xenophon, though they must have crossed it before they got to the greater. See Major Rennell, 129 and 141.

[h] ii. iv. 12. cf. i. vii. 14, 15. [i] ii. iv. 13, 14. [k] § 14. [l] § 24. [m] § 25. [n] § 27. [o] § 28. [p] ii. v. 1. cf. iii. iii. 6. [q] ii. v. 1. [r] § 2–26.

which they were actually circumvented and seized[s], (before evening the same day[t], much more before nightfall[v], or midnight[x],) must have been meant of October 30, the 239th of the general account. This apprehension of the commanders of the Greeks then took place October 30; just 55 days after Cunaxa: 23 of which had been passed in moving or marching, beginning Sept. 6, the day after the battle, the remainder, 32, in rest and inactivity.

This event closes the second Part of the Chronology of the Anabasis. We may however include in it the proceedings of the ensuing night; when Xenophon himself began to assume that prominent part in the direction of the retreat which he sustained ever after. The principal event of this night was the appointment of new commanders: and as this had not yet been done when it was now night[z], nor by midnight[a], and was only just over at daybreak[b], it took up twelve hours at least; and the proper date of this election of fresh officers must have been October 31, the 240th of the general account. No moon is mentioned in the course of these proceedings, though every thing was going on by night; which is a great confirmation of our calculations hitherto: for October 31, Mæmacterion 3, the moon could not have been more than two or three days old.

The date of the circumvention of the Greek commanders then was the 29th of Murdad-mah (the 8th month) in the Persian calendar, the 27th of Arieki (the 8th) in the Armenian, the 2d of Mæmacterion in the Attic, the 4th of the second month in the Spartan, the 29th of the tenth month in the Corinthian and Ambraciot, and the 18th of the eleventh month in the Arcadian. We learn from the Persica of Ctesias[c], that Artaxerxes was at Babylon, when Clearchus and the rest of these prisoners were brought thither; and that also confirms our calculations—Babylon being the usual place of residence of the kings of Persia, in the eighth month of their calendar[cc]—in fact, from the sixth month to the end of the year: a rule of theirs which we may have occasion to illustrate more fully hereafter.

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[s] ii. v. 27–42. [t] iii. i. 3. [v] § 11.13. [x] § 33.

[z] iii. i. 3. 13. [a] § 33. [b] § iii. ii. 1.

[c] Apud Photium, Bibl. Cod. 72. 44, 28. [cc] Cf. Anab. iii. v. 15.

## SECTION VI.—*Third Part of the Chronology of the Anabasis; From the day after the seizure of the Generals, October* 31 *B. C.* 401, *to the day of the departure from Cotyora on the Pontus, May* 21 *B. C.* 400.

It will be necessary in this Part to keep a strict account of the number of stathmi, as equivalent to so many days of marching: and for this purpose we must take up the reckoning where we left off, with the 239th day of the general computation, the 23d of actual motion, beginning the day after Cunaxa, up to October 30, B. C. 401.

The Greeks had been stationary, from the day of their arrival at the Zabatus [d], October 25, up to this day. The election of new commanders, and the other preliminaries to the resumption of the retreat, having been completed on the night of Oct. 30, and the morning of October 31, the 240th of the general reckoning—they crossed the Zabatus, after the *ἄριστον* [e] (the usual morning's meal), this day, Oct. 31. The whole of the rest of that day was spent in marching [f], the 24th so employed, as yet; but with little progress, only 25 stades in all. At *δείλη* [f] (which is here used in the common sense of evening), they came to the *κῶμαι*, where they halted for the night [g].

The next day was passed in inaction [h]: Nov. 1, general reckoning 241. The day after they resumed their march, *πρωϊαίτερον ἀναστάντες* [i]: Nov. 2: the 25th day of marching, the 242d of the general account. In the course of this day they came to the Tigris and the city Larissa [k].

From thence they marched, the next day, to the city Mespila [l], 1 stathmus, 6 parasangs *: Nov. 3: 26th of marching, general reckoning 243. From Mespila [m] there was *one* stathmus, four parasangs, to the end of the next day [n], Nov. 4, the 27th of marching, the 244th of the general account. We have then the next day, for which they were still halting[o], Nov. 5, general reckoning 245.

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* It may be proper to observe here that we shall henceforward notice the number of parasangs, where Xenophon does so too; but as he does not do it regularly, we cannot for the future keep any regular account of them.

[d] ii. v. 1.
[e] iii. iii. 6.
[f] iii. iii. 11.
[g] § 20.
[h] § 20. iv. 1.
[i] iii. iv. 1.
[k] iii. iv. 6, 7.
[l] § 10.
[m] iii. iv. 13.
[n] § 16. 18.

Τῇ δ' ὑστεραίᾳ—Nov. 6, 28th of marching, 246th of the general account—the march was resumed: and we have four stathmi (the first of them, this of Nov. 6) in sequence[p], Nov. 6–9, 28–31 of marching, 246–249 of the general account. They were on their way to the fifth stathmus[q], Nov. 10: and the same day is again mentioned[r], and the end of this day[s], Nov. 10, 32d of marching, 250th of the general account. At this mansion they remained three days[t], Nov. 10–13: general reckoning 250–253 both inclusive.

On the *fourth* day the retreat was resumed; and we have the δείλη[v] or afternoon of this day, and ὀψὲ[x], nearer to evening; and a continuation of the march even after that, so as to traverse a space of sixty stades more, in order to get so much in advance of their pursuers[y]. This day must have been Nov. 14, the 33d of marching, the 254th of the general account: and it is here to be noted that Nov. 14, B. C. 401 —as appears from the Attic date, the 17th of Mæmacterion—was only a day or two later than the full moon; which must consequently have favoured this movement of the Greeks.

After this, we have mention made of τῇ ὑστεραίᾳ, Nov. 15 —τῇ τρίτῃ, Nov. 16—and τῇ τετάρτῃ, Nov. 17; all in sequence[z]: and on the night of the last of these days, προελθόντες οἱ βάρβαροι, it is observed, occupied a post, which intercepted the retreat of the Greeks. We consider the account of this movement of theirs, where it comes in, according to the idiom of Xenophon in other instances, to have been proleptical*; and therefore that the allusion to the δείλη[a] which also occurs, is to be understood of the evening of Nov. 17. At this time mention is made of νομαὶ πολλαὶ βοσκημάτων, which the Greeks surprised in the act of being transported across the Tigris; and that too is an argument of the season of the year, as not yet too late for flocks and herds in this climate to be still tended in the open air. We are thus brought to the 36th day of marching, the 257th of the general account. Moreover as the moon had favoured the advance of the Greeks on the night of Nov. 14, when it was only 16 days old, so it would favour that of the Persians on the night of Nov. 16, only two days later.

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* That is, that the march of the Persians in order to reach this post was made on the night of November 16 (the beginning of the corresponding day of the month by the Greek rule of reckoning) and of course the morning of Nov. 17—and they were found by the Greeks posted accordingly on the 17th, between the morning and the evening.

[o] iii. iv. 18. [p] § 23. [q] § 24. [r] § 26. [s] iii. iv. 30.
[t] § 31. [v] § 34. [x] § 36. [y] § 37. [z] § 37. [a] iii. v. 2.

Τῇ *ὑστεραίᾳ,* they again marched one day[b], Nov. 18, the 37th of marching, the 258th of the general account. On the morning of the next, Nov. 19. the 38th of marching. the 259th of the general account, they entered the country of the Carduchi, or Kurds; and Xenophon describes the time chosen for so doing, as follows[c]: *Ἡνίκα δ' ἦν ἀμφὶ τὴν τελευταίαν φυλακὴν, καὶ ἐλείπετο τῆς νυκτὸς ὅσον σκοταίους διελθεῖν τὸ πεδίον, τηνικαῦτα ἀναστάντες ἀπὸ παραγγέλσεως πορευόμενοι ἀφικνοῦνται ἅμα τῇ ἡμέρᾳ πρὸς τὸ ὄρος.* The age of the moon, Nov. 19, throws much light on the reasons of this proceeding; for by the Attic reckoning of the time, which was sufficiently near to the truth, it was 21 days old complete on the 22d of Mæmacterion, Nov. 18 at 18 hours: and at that age it commonly rises an hour or two after midnight. Something, it is true, depends here on the question whether the Greeks at this time made four night watches, or only three. In the time of Homer they made only three. We have found from calculation, that for the latitude where the Greeks now were, on this day, Nov. 19, B. C. 401, the sun would set about 4. 49. 20·6 P. M. apparent time, exclusive of refraction, and rise about 7. 10. 39·3 A. M. apparent time; and the length of the first eight nocturnal hours being 9 h. 34 m. 12·4 s. the third (if that was the last) watch would begin *circa* 2. 23. 33 A. M.: and that must have been the time chosen for the march across the plain, in order to have the benefit of the light of the moon, yet so as to arrive at the foot of the mountain, which they had to scale, by the break of day.

The ascent of this mountain, and the descent into the plain, or on the *κῶμαι* below, took up the whole of this day[d], down to night[e]; and it was consequently the first among the Carduchi: Nov. 19, the 38th of marching, the 259th of the general account. The second is mentioned, *ἅμα τῇ ἡμέρᾳ*[f];

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[b] iii. v. 13. [c] iv. i. 4. [d] § 10. [e] § 10, 11. [f] iv. i. 12.

and the ἄριστον also of that day[g]: Nov. 20, the 39th of marching, the 260th of the general account. The third is noticed[h]; and on it χειμὼν πολὺς—which, if we consider the time, Nov. 21 (the 40th of marching, the 261st of the general account), and the locality, the mountains of Carduchia, and the age of the moon, 24 days old, is only what might *a priori* have been expected. We have the δείλη of this day[i], that is, the afternoon; and much rain, ὕδωρ πολὺ ἐξ οὐρανοῦ[k]: then the dark as such[l], and the whole of the night to the end[m].

The *fourth* day among the Carduchi (Nov. 22, 41st of marching, 262d of the general account) begins at daybreak[n]: the *fifth* (Nov. 23, the 42d of marching, 263d of the general account), τῇ ὑστεραίᾳ[o]: and at the end of this day they pitched for the night by the river Kentrites[p]. And here a remark occurs which at first sight seems to be inconsistent with our calculations[q]: Ἑπτὰ γὰρ ἡμέρας, ὅσασπερ ἐπορεύθησαν διὰ τῶν Καρδούχων, πάσας μαχόμενοι διετέλεσαν, καὶ ἔπαθον κακὰ ὅσα οὐδὲ τὰ σύμπαντα ὑπὸ βασιλέως καὶ Τισσαφέρνους. Diodorus also (though probably only after Xenophon) recognises this interval of *seven* days among the Carduchi[r]. This observation certainly comes in on the *fifth* day. But we have more than once observed that Xenophon, in other instances also, interposes a note of time which the context proves to have been intended *proleptically*; and he has done so here: for the actual length of the time taken up by this march through the country of the Kurds, as we shall see by and by, was just *seven* days; the border river having been crossed before noon on the seventh day.

The *sixth* day among the Kurds begins ἅμα . . τῇ ἡμέρᾳ[s]: and both this day and the next night are mentioned[t]: Nov. 24, the 43d of marching, the 264th of the general account. The *seventh* begins before dawn, or ὄρθρος[v]: daybreak is then mentioned[x]: and the passage of the river, by which they got clear of Carduchia, was effected about noon the same day[y], Nov. 25, the 44th of marching, the 265th of the general reckoning. And it is very observable that though the ὄρθρος is specified, as distinct from daybreak, no allusion occurs to the moon; which at this time could not have been visible, being 28 days old. We thus see that *seven* days (but no more) were spent among the Carduchi, the first Nov. 19, the last Nov. 25.

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[g] iv. i. § 14. [h] § 15. cf. 19. [i] iv. ii. 1. [k] § 2. [l] § 4. [m] § 4–6. [n] § 7. cf. ii. 1. supra. [o] iv. ii. 24. [p] iv. iii. 1. [q] § 2. [r] xiv. 27. [s] iv iii. 3. cf. § 7. of the night before. [t] § 8. [v] § 8. [x] § 9. [y] iv iii. 9—iv. 1.

There was time, it appears, even after the passage of the river this day, to make a march, reckoned, whether truly or not, at 5 parasangs[z]. We have then 2 stathmi 10 parasangs to the passage of the river which is described as the Tigris; and near its sources[a]: Nov. 25–27, 44–46 of marching, 265–267 of the general account. After this, 3 stathmi, 15 parasangs, to the river Teleboas[b]; Nov. 27–30, 46–49 of marching, 267–270 of the general account. Then 3 stathmi, 15 parasangs more[c], Nov. 30—Dec. 3, 49–52 of marching, 270–273 of the general account; on the last of which, *στρατοπεδευομένων αὐτῶν γίνεται τῆς νυκτὸς χιὼν πολλή*[d]: which is the first mention of a phenomenon of that kind—the time being the night of Dec 3, the 7th of Posideon A, when the moon was six days old complete; and the locality being Armenia *ἡ πρὸς ἑσπέραν*[e], a very mountainous and elevated tract of country. This is consequently a natural token of the time of the year, which agrees altogether with our own dates hitherto. The morning is first mentioned[d], Dec. 4, the 274th of the general reckoning; then the night of that day[f], when there was again a great fall of snow: and so on to the end of the night[g], and to the morning of Dec. 5. The Greeks did not march on Dec. 4.

The next day, Dec. 5, the 275th of the general account, the march was renewed[h], and this was the 53d march. It was continued *τῇ ὑστεραίᾳ*[i] Dec. 6, the 54th of marching, the 276th of the general account, *διὰ χιόνος πολλῆς*, until they pitched for the night. After this, 3 stathmi, 15 parasangs[k], to the passage of the river called the Euphrates (the eastern branch of the Euphrates, called at present Murad*), near its sources also; Dec. 6–9, 54–57 of marching, 276–279 of the general account. Then 3 stathmi, 15 parasangs more, *διὰ* χιόνος πολλῆς[l], Dec. 9–12, 57–60 of marching, 279–282 of the general account; a sharp wind from the north during the third of these marches blowing in their faces. The night of this third day is mentioned[m].

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[z] iv. iv. 1. [a] § 3. [b] § 3. [c] § 7. [d] § 8. [e] Cf. iv. iv. 4: v. 34. [f] iv. iv. 10, 11: 11–14. [g] § 11–15. [h] § 19. cf. 22. [i] iv. v. 1. [k] § 2.

* See Major Rennell's Illustrations, 209. The western branch is called Erzerum, or Frat.

The next day,—τὴν ἐπιοῦσαν ἡμέραν ὅλην ἐπορεύοντο διὰ χιόνος[n]—Dec. 13, 61st of marching, 283d of the general account. Dusk (κνέφας) is alluded to at the close of the day[o], when they came to the κῶμαι there described; ὀψὲ, or late, directly after[p]; and ἤδη σκότος, last of all[q]: and Dec. 13 at 18 h. being the 18th of Posideon A, two days past the full, there could have been no moon at sunset, nor for some time after. Cheirisophus with his division spent the night in these villages, under cover; Xenophon with his, in the open air[r]: and now it was they suffered most from the cold; in reference whereto we may compare what is related historically here[r] with the allusions to some of these incidents on a later occasion[s].

The next day is first mentioned[t]; Dec. 14. On this day Xenophon also with his men joined Cheirisophus in the villages: of which junction he gives the following account[v]: *Ἔνθα δὴ Πολυκράτης Ἀθηναῖος λοχαγὸς ἐκέλευσεν ἀφιέναι αὑτόν. καὶ λαβὼν τοὺς εὐζώνους, θέων ἐπὶ τὴν κώμην ἣν εἰλήχει Ξενοφῶν, καταλαμβάνει πάντας ἔνδον τοὺς κωμήτας καὶ τὸν κωμάρχην· καὶ πώλους εἰς δασμὸν βασιλεῖ τρεφομένους ἑπτακαίδεκα· καὶ τὴν θυγατέρα τοῦ κωμάρχου ἐννάτην ἡμέραν γεγαμημένην. ὁ δὲ ἀνὴρ αὐτῆς λαγῶς ᾤχετο θηράσων, καὶ οὐχ ἥλω ἐν ταῖς κώμαις.* Now, by the above reckoning, this incident happened on the 14th of December, B. C. 401. If the daughter of the comarch had been nine days married on that day, she must have been married on Dec. 6. If we look at this date in the Primitive calendar, Æra Cyc. 3607, Nab. 348, we find it answered to Thoth 3 in the former, Thoth 6 in the latter: if in the Armenian, it corresponded to the 4th of Marieri, the *tenth* month. We consider these coincidences significant. For, by the Primitive calendar, this marriage would thus have been celebrated in the Primitive Thoth; and by the Armenian, in that month which now corresponded to it, and had done ever since the adoption of the Gjemschid correction for that calendar, as we hope to shew some time or other, B. C. 462. The Primitive rule, especially in the east, as we have before observed[x], and may have a future opportunity of shewing at large, with respect to marriages, was to celebrate them in the first month of the Primitive year, the Primitive Thoth; and this Armenian marriage, on the 6th of Thoth, would so far seem to have been celebrated in conformity to that rule. The horses or colts too, which were surprised at the same time, Εἰς δασμὸν βασιλεῖ τρεφόμενοι—(whether 17 in number, according to the received reading in the text, or some other, greater in amount, which has been conjectured,) were probably either due at this time, (the first month of the Primitive calendar throughout the dominions of the Persian empire,) or expected to be so in the Persian month of Dey-mah, March 6 next ensuing. That some of the nations subject to the Persians paid their tribute in horses appears from Herodotus[y] *.

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[l] iv. v. 3. [m] iv. v. § 5–6. [n] § 7. [o] § 9. [p] § 10. [q] § 17.
[r] iv. v. 19–21. [s] v. viii. 1, 2, 3–12. 14, 15. [t] § 21. cf. 19. [v] § 24.

Other circumstances, descriptive of the season of the year, are mentioned also in this account of the first day of the sojourn of Xenophon among these villages, Dec. 14. For instance[a], Ἐν δὲ ταῖς οἰκίαις ἦσαν αἶγες, κ̀, τ. λ. that is, all manner of domestic cattle, which they were keeping in stables under cover, feeding them on dry fodder: τὰ δὲ κτήνη πάντα χιλῷ ἔνδον ἐτρέφετο. There were also καὶ πυροὶ καὶ κριθαὶ laid up in store . . . καὶ οἶνος κρίθινος ἐν κρατῆρσιν. κ̀, τ. λ.

* One of these horses Xenophon, it seems, (iv. v. 35.) selected for his own use; and it became a great favourite with him: so that it was much against his will that he was forced, from want of money, to part with it at Lampsacus, in the spring of B. C. 399. His friends however redeemed it for him. The horse which he was using before being old, and, as he had been informed, (iv. v. 35.) consecrated to the sun; he left it with the comarch, Ἀναθρέψαντι καταθῦσαι (τῷ ἡλίῳ): which would imply that the worship of Mithras or the sun was recognised in Armenia at this time, as well as in Persia. Horses were sacrificed by the Persians, (see Herodotus vii. 113.) and to the sun: cf. i. 216.

> Placat equo Persis radiis Hyperiona cinctum,
>     Ne detur celeri victima tarda Deo.
>
> Ovid. Fasti, i. 385.

Philostratus (Vita Apollon. i. xx. 42 C) supposes a white horse to be sacrificed to the sun by the Parthian king Bardanes: cf. Eustathius, ad Il. A. 41. 36, 30: B. 761. 339, 40.

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[x] Vol. i. page 95, 96.

[y] iii. 90.

[a] iv. v. 25.

Nothing green was to be found; and even the chaplets which the Greeks, according to their own custom, wore about their heads, over their wine, were made of dried grass, or hay, χιλός[b].

The next day is mentioned[c], Dec. 15; and then the *eighth* day—Ἐπεὶ δὲ ἡμέρα ἦν ὀγδόη[d]—on which the march was resumed διὰ χιόνος. We understand this day of Dec. 21, the 62d of marching, the 291st of the general account: so that the length of the stay made in these villages was just *seven* days complete, from Dec. 14 to Dec. 20 inclusive. They marched this day, and two more, 3 stathmi[e]; Dec. 20–23, 61–64 of marching, 290–293 of the general account. On the night of the third their guide, (the comarch of Xenophon's village,) having been ill-treated by Cheirisophus, made his escape; in consequence of which they had to make the rest of their way, as well as they could, without him.

After this we have *seven* stathmi, of *five* parasangs each[f], to the river Phasis: Dec. 23–30, 64–71 of marching, 293–300 of the general account. Then *two* stathmi *ten* parasangs[g] to the borders of the Chalybes, Dec. 30, B.C. 401–Jan. 1, B.C. 400, 71–73 of marching, 300–302 of the general account. The last of these days is particularized by the ἄριστον[h], the δεῖπνον[i], and the night[k]. The next day is then mentioned[l], Jan. 2, the 74th of marching, 303d of the general account: and this appears to have been the last among the Chalybes. We have next 5 stathmi 30 parasangs to the country of the Taochi[m]; Jan. 2–7, 74–79 of marching, 303–308 of the general account: and to some one of these days allusions occur (all belonging to it alike[n]) which appear to us to have been meant of the last, January 7, itself.

After this, we have *seven* stathmi, 50 parasangs, Διὰ Χαλύβων[o]: Jan. 7–14, 79–86 of marching, 308–315 of the general account. Ἐκ τούτου to the river Harpasus[p]; which implies a march, but specifies neither time nor distance. The question is therefore whether it was only one day's march, or more. We have calculated the details of subsequent events on the former supposition: and the result of that assumption has turned out to be that the sum total of marches at last is *two* less than Xenophon himself makes it. We must therefore conclude that the march to the Harpasus took up in reality *three* days[*]—Jan. 14–17, 86–89 of marching, 315–318 of the general account: and that will make every thing consistent at last[†].

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[b] iv. v. 33. cf. with this account of the sojourn of the 10,000 among the Armenians, Virgil's description of a Scythian winter, in his Third Georgic, 348 sqq. which was evidently founded upon it.

[c] iv. v. 30.

[d] iv. vi. 1, 2. cf. Diodorus, xiv. 29.

[e] iv. vi. 2.

[f] § 4. cf. Diodorus, who makes only *four*.

[g] § 5. cf. § 8.

[h] § 8, 9.

[i] § 17. 22.

[k] § 17. 22. 13.

[l] § 23.

[m] iv. vii. 1.

[n] § 8–14.

[o] iv. vii. 15. cf. Diodorus, xiv. 29. who appears to give these Chalybes the name of Χαλδαῖοι. cf. Major Rennell, Illustrations, 233.

We have next *four* stathmi 20 parasangs διὰ Σκυθινῶν[q]: Jan. 17–21, 89–93 of marching, 318-322 of the general account: and then, an halt of *three* days[r], Jan. 21–24, general reckoning 322–325. After this, to the city of Gymnias, *four* stathmi 20 parasangs[s]: Jan. 24–28, 93–97 of marching, 325–329 of the general account. At this mansion, it was reckoned they were five days distant from the sea[t]; and they actually came in sight of it on the *fifth* day afterwards[v]: i. e. (for these were days of marching) Jan. 28–Feb. 2, 97–102 of marching, 329–334 of the general account. The evening of this day and the departure of the guide, who had conducted them to the sea, are both mentioned[x].

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[*] Major Rennell, 230–234, assuming the Harpasus here mentioned to have been the modern Harpasou, calculates the distance between that river and the Phasis, at 150 British miles, including the windings of the road; and this divided among 18 marches, (the number from the Phasis to the Harpasus, in the text of the Anabasis, increased by three,) gives an average of about $8\frac{1}{3}$ miles to each: which for the time of the year, and the circumstances under which the Greeks were marching all the while, ignorant of the country and without a guide, and fighting their way, cannot be considered improbable.

[†] How the number of marches in this instance came to have been omitted—whether by Xenophon himself, or through some accidental hiatus in his text—is another question; about which we offer no conjecture. The necessity of two marches, somewhere or other, between the day after the battle of Cunaxa, and the arrival at Cotyora, which do not appear in the text at present, is all that we contend for: and this necessity being admitted, the desideratum in question can be supplied no where so probably as here. After the loss of their guide, Dec. 23–24, the Greeks may well be supposed to have missed their way, and made two or three marches more than they might otherwise have done; and very possibly, on this occasion, to the river Harpasus. It is to be observed that, in order to render Xenophon consistent with himself at last, we do not want some *two* days more of rest, but some *two* days more of motion, than at present appear in his text: otherwise many occasions might be suggested on which the Greeks might have been stationary two days more than we have supposed; for instance, the 20 days, when they were waiting for Tissaphernes.

[p] iv. vii. 18. Diodorus, xiv. 29. calls this river, Ἅρπαγος.

[q] iv. vii. 18. cf. Diodor. xiv. 29. who calls them the Σκούτινοι.

[r] iv. vii. 18.

After this, *three* stathmi *ten* parasangs, Διὰ Μακρώνων[y], Feb. 2–5, 102–105 of marching, 334–337 of the general account. The first of these is mentioned by itself[z]; all three conjointly[a]—through the country of the Macrones to the borders of the Colchi. The country of Colchis was entered the next day[b], Feb. 6, the 106th of marching, the 338th of the general account: and from what is related of the mode in which those who tasted of the honey, found in this quarter, were affected by it, (an affection, which lasted in some cases *three* days[c] before it was over,) we must conclude that they halted here *three* days, Feb. 6–9, 338–341 of the general reckoning; and only resumed their march when all were in a condition to move again *.

On the resumption of the march, we have *two* stathmi *seven* parasangs, to Trapezus[d], or Trebizonde, on the Pontus

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* Doubts have been raised (Grote, ix. 155 note) in modern times about the existence of honey possest of this poisonous quality in those regions, at present at least. But see Major Rennell, 253, 254. Pliny, xxi. 44. recognises poisonous honey about Heracleia, on the Pontus; and cap. 45, this honey of the Anabasis, under the name of *μαινόμενον*—supposing it to have been produced from a species of Ῥοδόδενδρον (the Azalea Pontica). Procopius, De Bello Gotthico, iv. 2. 464. l. 3, 4—the honey about Trapezus is described as bitter. Strabo however mentions the following fact, which confirms this part of the Anabasis, if any thing is necessary to confirm it: xii. 3. 27 a: Οἱ δὲ Ἑπτακωμῆται (a tribe of the Μοσύνοικοι. cf. 26 *ad calc.*) *τρεῖς Πομπηΐου σπείρας κατέκοψαν, διεξιούσας τὴν ὀρεινὴν, κεράσαντες κρατῆρας ἐν ταῖς ὁδοῖς τοῦ μαινομένου μέλιτος, ὃ φέρουσιν οἱ ἀκρέμονες τῶν δένδρων. πιοῦσι γὰρ καὶ παρακόψασιν ἐπιθέμενοι, ῥᾳδίως διεχειρίσαντο τοὺς ἀνθρώπους.*

[s] iv. vii. 19. cf. Diodor. xiv. 29.
[t] § 20.
[v] § 21–27. cf. Diodor. xiv. 29.
[x] § 27.
[y] iv. viii. 1.
[z] § 1–8.
[a] § 8.
[b] § 9–19.
[c] § 20, 21. cf. Diodor. xiv. 30.
[d] iv. viii. 1. Diodor. xiv. 30.

Euxeinus; the first Grecian settlement to which they had yet come: Feb. 9–11, 106–108 of marching, 341–343 of the general account. And here they remained stationary 30 days, Feb. 11–March 13, general reckoning 343–373. We understand this note of time according to Xenophon's idiom, in such cases, of the *whole* of the stay at Trapezus: whatsoever may be related meanwhile[e]. It is mentioned *obiter*[f], in the course of this interval, that Anaxibius, the navarch or admiral of the Lacedemonians, was somewhere in the Pontus or the Hellespont at this time; and as the official year of the Spartans had entered Sept. 27, B. C. 401, he could not have failed to have arrived and assumed the command, before this time, Feb. 11–March 13, B. C. 400, even though he had been appointed only that year.

The march of the Greeks, we may suppose, was resumed on March 13. We reckon the *thirty* days of Xenophon equivalent to one *lunar* month; and if we may assume that he made use of the Spartan calendar, he would reckon from Feb. 11, the 20th of the fifth month by that calendar, to the same day in the next month; and as there was one exemtile day between, (the 18th of the next month,) the actual interval must have been 29 days, not 30 exactly; from Feb. 11 *exclusive*, the day of the arrival at Trapezus, to March 12, the last day of the stay there, *inclusive*. The day of the departure consequently would be March 13; the 109th of marching, the 373d of the general account.

Having set out from Trapezus on this day, they arrived at Kerasus (the next Grecian colony which came in their way) *τριταῖοι*[g], that is, March 15, the 111th of marching, the 375th of the general reckoning. And here they remained *ten* days, March 15–25, 375–385 of the general account: in the course of which, among other things, they had a review of their force, which was now found to amount to 8,600, out of 10,000.

Some particulars of this stay at Kerasus are afterwards recorded[h], which the context fixes to the night before the departure, that of March 25, the day of the departure having been March 26. The subject of these was the attempt of

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[e] iv. viii. 23–28. v. i–ii. 32.

[f] v. I. 4.

[g] v. iii. 2.

[h] v. vii. 13–17–20

Clearetus on the people of the country, the neighbours and friends of the people of Kerasus—and its consequences. The march was resumed by land[i], first to the country of the Mosynœki, March 26, the 112th of marching, the 386th of the general account. The next day is mentioned[k]; and we understand Xenophon to reckon from this day where he observes[l]: *Διὰ ταύτης τῆς χώρας οἱ Ἕλληνες, διά τε τῆς πολεμίας καὶ τῆς φιλίας*[m], *ἐπορεύθησαν ὀκτὼ σταθμούς· καὶ ἀφικνοῦνται εἰς Χαλύβους*: and the first having been March 27, the 113th of marching, the 387th of the general account, the eighth must have been April 3, the 120th of marching, the 394th of the general reckoning.

In these intermediate stations, notices occur of *two* days in sequence; *τῇ ὑστεραίᾳ*[n] and the next day, down to the time of the *ἄριστον*[o], when the march was resumed[p]: and so on, until they arrived among their friends[q]. In the description of the place, taken on the second of these days[r], mention is made of *θησαυροὶ ἄρτων νενημένων, περυσινῶν,* i. e. stores of loaves (or cakes) of the last year's manufacture, *ὡς ἔφασαν οἱ Μοσσύνοικοι,* while the new corn also (the *νέος σῖτος*) of the same year's growth, was lying by in the straw, *σὺν τῇ καλάμῃ ... ἦσαν δὲ ζειαὶ αἱ πλεῖσται.* Now this must have been the corn of the harvest of B. C. 401; and yet, as distinguished from the bread of the last year (*περυσινὸς*), it will imply that the year in question, the year of these Mosynœki, must have come to an end, and begun again, between corn-harvest B. C. 401 and this time, March 27—April 3, B. C. 400. And so it would, if it was still the primitive equable year, the new year's day of which at this time had fallen on December 4, B. C. 401.

*Ἐντεῦθεν ... πορευόμενοι δύο ἡμέρας ἀφίκοντο εἰς Κοτύωρα*[s]: the third Grecian settlement at which they had yet arrived. These *two* days were April 4 and 5, the 121st and 122nd of marching, the 395th and 396th of the general account. Here it is said they remained 45 days[t]; and these being understood, as before, of the whole of their sojourn, notwithstanding the account of any intermediate events between the day of their arrival[v] and the day of their departure[x], will bring down the reckoning from April 5 exclusive to May 20 inclusive, from the 396th to the 441st of the general account, from March 6, B.C. 401 to May 20, B.C. 400.

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[i] v. iv. 1. 21. cf. Diodor. xiv. 30.

[k] v. iv. 11.

[l] v. v. 1.

[m] Cf. v. iv. 11–32–v. 1. cf. Diodor. xiv. 30.

[n] v. iv. 11. down to § 22. cf. also 23.

[o] § 22–30.

[p] § 30.

[q] § 32.

[r] § 27.

[s] v. v. 3.

[t] § 5. Diodorus, xiv. 31. says 50 days.

With the arrival at Cotyora Xenophon closes the history of the Κατάβασις, properly so called; and therefore interposes here a summary of its length, as he did before of that of the Ἀνάβασις—up to the day of Cunaxa[y]: Μέχρις ἐνταῦθα ἐπέζευσεν ἡ στρατιά. πλῆθος τῆς καταβάσεως τῆς ὁδοῦ, ἀπὸ τῆς ἐν Βαβυλῶνι μάχης ἄχρι εἰς Κοτύωρα, σταθμοὶ ἑκατὸν εἴκοσι δύο, παρασάγγαι ἑξακόσιοι εἴκοσι, στάδιοι μύριοι ὀκτακισχίλιοι καὶ ἑξακόσιοι. χρόνου πλῆθος ὀκτὼ μῆνες. Here, as before, the number of parasangs 620, multiplied by 30, is equal to the number of stades, 18,600; but the number of stathmi 122, multiplied by 5, does not equal that of parasangs, but falls short of it by *ten*.

The most important item in the reckoning however is the number of stathmi, 122; which was no doubt meant of the number of day's marches: and there is every reason to conclude that the reading of this number in the text at present, is sound and good. For if we compare the statement which is subjoined also to the whole history[z], we find the entire length both of the Ἀνάβασις and of the Κατάβασις given as follows: Ἀριθμὸς συμπάσης τῆς ὁδοῦ τῆς ἀναβάσεως καὶ καταβάσεως σταθμοὶ διακόσιοι δεκάπεντε, παρασάγγαι χίλιοι ἑκατὸν πεντήκοντα πέντε, στάδια τρισμύρια τετρακισχίλια ἑξακόσια πεντήκοντα: and that these numbers are the same in the gross with those before given in detail, will appear from the simple addition of either of those to the other.

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|---|---|---|---|
| Before, we had for the Ἀνάβασις | 93 σταθμοὶ, | 535 παρασ., | 16,050 στάδ. |
| And now, for the Κατάβασις | 122 —— | 620 —— | 18,600 —— |
| Sum of both .. .. | 215 σταθμοὶ, | 1155 παρασ., | 34,650 στάδ. |

If then this final summary made part of the history from the first, it reiterates and authenticates the sum and substance of the particulars given in each instance previously. We think therefore the specified number of stathmi or marches in the descent, must be considered the true; and consequently that the army must have made 122 marches, each equivalent to a day, from the day after the battle of Cunaxa inclusive to that of the arrival at Cotyora. And it is clear from our own reckoning, that they could not have made fewer than 120, even if the march to the Harpasus was supposed to have taken up only one day; and if that was to be reckoned at three days, they must have made 122: so that on this principle, the details of the proceedings of the army, from one of the extreme points of time in question to the other, as deduced from the narrative, and exhibited day by day hitherto, will be strictly in agreement with the summary statement of the whole, given by the historian himself, at the end of all.

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[v] v. v. 2, 3.
[x] v. ix. 14.
[y] v. v. 4.
[z] vii. viii. 26.

It is also to be observed, that this summary subjoined at the end, the most general and comprehensive of all[a], defines the whole of the time taken up by both the *ascent* and the *descent* (the former beginning from Ephesus, the latter ending at Cotyora) as *one* year and *three* months: Χρόνου πλῆθος τῆς ἀναβάσεως καὶ καταβάσεως ἐνιαυτὸς καὶ τρεῖς μῆνες. According to our computation, the sum total of days from Sardes, March 6, B. C. 401, to Cotyora, May 20, B. C. 400, was 441; and reckoned from Ephesus and March 2, B. C. 401, was 445. These would be equal to one lunar year of 354 days, and 91 of another, one or two days more than three lunar months; 89 days or 90 days. But the Greek lunar year, under some circumstances, consisted of 355 days; i. e. when the number of exemtile days in the year was only 5 instead of 6. And that was the case, by the Spartan calendar, B. C. 401–400, as the scheme proposed supra[b] shews. For if we reckon from the first of the sixth month by that calendar, March 4, B. C. 401, to the first of the same month again, Feb. 22, B. C. 400; the number of exemtile days between will be seen to have been 5. Consequently the year included must be reckoned at 355 days; and these being subtracted from 445, (the sum total of days determined as above,) the remainder is 90 days, or three months of thirty days each; as all the Greek lunar months were nominally reckoned to be.

But this reckoning, it may be said, holds good only by the

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[a] vii. viii. 26.

[b] Page 217.

Spartan calendar: and why, it may be demanded, must Xenophon have reckoned by this calendar, and not by the Attic? In answer to this question, we must consider the circumstances under which, in all probability, he wrote, or published, his history of the Anabasis. With regard to himself, the part which he took in this expedition, and afterwards in the service of the Lacedemonians, led to his banishment from Athens, by a public decree[c]; and it is doubtful whether he returned to Athens, after he once left it to go on this expedition, B. C. 401, and did not die in Corinth[d]: or if he did, it could have been only a year or two before his death[e]. It is certain too, that having attached himself to Agesilaus, he became his personal friend[f], and through his influence, no doubt, obtained the settlement of Skillus, which was given him by the Lacedemonians, and which he has himself described in the Anabasis[g]; and where, as it may be collected from Diogenes Laertius, he must have continued to reside until he was dispossest and ejected by the Eleans, after the battle of Leuctra, as it is supposed[h], when he retired for a time to Lepreum[i], and ultimately to Corinth *[i]: but not before the battle of Mantinea, B. C. 362, in which Gryllas his son lost his life[ii]; nor consequently more than two years at the utmost before his own death, if, as Diogenes records[j], he died himself at Corinth Ol. cv. 1, Callidemides, B. C. 360 †.

* And yet from Pausanias, v. vi. 4, it must be inferred that the Eleans themselves gave him leave to remain unmolested at Skillus; and that even his tomb was still to be seen there in Pausanias' time.

† This too is a doubtful point. He was certainly living after the battle of Mantinea, of which he himself gives an account in his Hellenica, and with which, in fact, he closes that history. If he was 90 at his death, according to Lucian, and died B. C. 360, according to Diogenes, he must have been 88, when he concluded this history—and 48 at least, B. C. 401—when he went upon the expedition with Cyrus: and that, in our opinion, would be decidedly contrary to the internal evidence of the Anabasis itself.

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[c] Diogenes Laertius, ii. vi. vii. 51: xv. 59. Cf. Anabasis, v. iii. 7: vii. vii. 57.

[d] Diog. ii. vi. ix. 52: xi. 56.

[e] Ibid. xv. 59.

[f] Ibid. § vii. 51.

[g] v. iii. 5–13.

[h] ii. vi. viii. 52.

[i] Ibid. ix. § 53.

[ii] Ibid. x. 54.

[j] Ibid. xi. 56. Cf. Lucian, iii. 223. Macrobii 21. Also Diogenes Laert. ii. vi. xv. 59.

And with respect to his work, and the time when it must have been written, he had not published it before the battle of Coronea[k], B. C. 394; nor before the publication of the history of Ctesias, which he himself twice quotes in it[l]; that is, before the 17th year of Artaxerxes Mnemon, at least, B. C. 388-387, in which the Persica of Ctesias ended. He had not published it before his retirement to Skillus[m], under the protection of the Lacedemonian government; which could not have been earlier than B. C. 394, in which year he returned from Asia with Agesilaus: nor before he was married and had children, and those children too grown up, as appears from his account of the festival instituted by him at Skillus, in honour of Artemis, after his settlement there. And though Diogenes Laertius, in his life[n], seems to imply that he was already married, and had a wife and two sons by her, when he returned with Agesilaus, B. C. 394 (six years after the close of the history of the Anabasis), it is clear that just at the end of that history, when he was engaged in the service of Seuthes, he had neither wife nor child as yet[o]. It is morally certain then that the Anabasis was either written or put together in its present form, 25 or 30 years after the close of the history itself, when Xenophon was living and had long been living at Skillus, in Arcadia, more like a citizen of Sparta, than one of Athens: and under these circumstances, it must be equally probable that if he chose to reckon in it by some calendar in particular, it would be by the Spartan in preference to any other.

It confirms this conclusion, that the day of the departure of the Greeks from Cotyora (the day after May 20, the last of their sojourn there) turns out, by this calendar, to have been the first of the month; for the ninth month in the Spartan calendar, B. C. 401–400, actually bore date May 21. It is observable also, that the day of Xenophon's own departure from Ephesus, March 2, B. C. 401, was only two days earlier than the date of the sixth month in the same calendar that year, March 4. Let these two days be disregarded, and the interval be reckoned in this calendar from March 4, B. C. 401, as the first of the sixth month to May

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[k] v. iii. 6.

[l] i. viii. 26, 27.

[m] ii. iii. 7–13. cf. vii. vii. 57.

[n] ii. vii. § vii. viii. 51, 52.

[o] vii. vi. 34.

21, B. C. 400, as the first of the ninth, and it will be found to have been exactly 15 months; that is, as there was no intercalary month in this interval, one lunar year and three months. Moreover, by the same calendar, Sept. 5, the day of the battle of Cunaxa, being only the 8th of the xiith month, and April 5, the day of the arrival at Cotyora, being the 14th of the viith month, each of these months being taken into the account, (the former as including two-thirds of the twelfth month, the latter as comprehending one-half of the seventh,) the length of time occupied by the descent, from Cunaxa to Cotyora, during all which time the army was marching on foot, might be represented, as it is, by Xenophon, at *eight* months[o].

We will mention one more argument only of the truth of our assumption, that the calendar recognised by Xenophon was the Spartan. In the account of the proceedings at Cotyora, evidently beginning very near the end of the time passed there[p], there is a double allusion to the *νουμηνία*[q], as at hand, and to the promise of pay from the people of Heracleia, which should bear date from that day. It is strongly implied by the context, that the *νουμηνία* in question would coincide with the day of the departure, May 21: and so it would, as we have shewn, by the Spartan calendar, but not by the Attic, in which May 21 was the 28th of Munychion for the time being, not the first of Thargelion.

### SECTION VII.—*Fourth Part of the Chronology of the Anabasis; From the day of the departure from Cotyora, May* 21 *B. C.* 400, *to the day of the junction with Thimbro, March* 13 *B. C.* 399.

Mention is made of the day before the departure, down to the night[r]; consequently May 20. Τῇ δ' ὑστεραίᾳ[s], the army set sail; this part of their journey having been by sea[t]: and after one day and one night's sail, (May 21 and 22,) τῇ ἄλλῃ, May 22, they arrived at Ἁρμήνη, in the territory of Sinope[v], the fourth Greek colony which they had as yet come to. Here they remained *five* days[x], May 22–26; the day of the arrival being probably included in the number.

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[o] v. v. 4.
[p] v. v–ix. 12.
[q] v. vi. 23. 31.
[r] v. ix. 2–13.
[s] § 14.
[t] Cf. v. vii. 8.
[v] v. ix. 15.
[x] § 17.

The particulars of the last of these days, May 26, on which it was proposed to appoint Xenophon commander-in-chief, and on which Cheirisophus was actually so appointed[y], are given in detail; and from the time of this appointment to the time when they were now at Heracleia[z], and from that to the day on which he was deprived of the command, we have an interval of *six* or *seven* days[a]; that is, since it is said he was deprived of the command, ἡμέρᾳ ἕκτῃ ἢ ἑβδόμῃ ἀφ' ἧς ᾑρέθη, if the day of the appointment was May 26[b], we may reckon that of the deprivation June 1.

And here it is observable that mention occurs of the demand of a month's pay from the people of Heracleia[c]; which the context determines to this seventh or last day of the command of Cheirisophus, June 1: and that would imply, that this day, June 1, was probably the νουμηνία, or first of the month, in the calendar of the Heracleotæ of this time. If so, their calendar could not have been the same with any of those, of each of which we proposed the scheme, both for B.C. 402–401, and for B.C. 401–400, supra[d]; in none of which did this day, June 1, B.C. 400, coincide with the first of any month; though in the Arcadian calendar the 6th of June was the νουμηνία of the seventh month. Nor was there any type of the Hellenic octaëteris any where in use, at this time, in which June 1, B.C. 400, would be the νουμηνία of one of the months, except the fourth, the epoch of which was Jan. 2, B.C. 517. In that type, B.C. 400 would have corresponded to Period i. 118, Cycle xv. 6; in which year of the cycle the first month fell on Jan. 5, and the sixth on June 1. This coincidence renders it highly probable that the Heracleote calendar of this time was one of those which belonged to that type *.

* Different accounts have been given of the foundation of Heracleia on the Pontus. According to Apollon. Rhodius[1], it was a colony from Megara and Tanagra. So also according to Pausanias[2]. Justin[3] calls it a Theban colony. According to Strabo[4], it was founded by the Milesians; and as this is Xenophon's account of its origin also, and the Milesians are

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[y] v. ix. 17–33.
[z] v. x. 1.
[a] x. 12.
[b] v. x. 6.
[c] v. x. 5–12.
[d] Page 217, 218.

[1] ii. 846–852. cf. the Schol. and also ad ii. 747–751.
[2] v. xxvi. 6.
[3] xvi. 3, 3–7.
[4] xii. 3. 15 b. cf. 16 b.

After this we have the departure from Heracleia, but without any specification of the time[e]. It could not have been earlier than June 1; and we may assume that it was June 2. Then, the night of this day[f], when the Arcadians landed at Calpes Portus, a day's sail from Heracleia, as the maps shew: and after that, the next morning, June 3, at daylight[f]. Consequently, there was no moon, at this time, *all* night at least: nor could there have been, June 3, Thargelion 11. We have the night of this day[g], and the next morning[g], June 4, on which the Arcadians met with the reverse related vi. i. 6–9. After this, as we shall see by and by, there is an hiatus of two days, June 4–6; down to the mention of supper, (evening, or in strictness after sunset,) on the day when Xenophon, marching with his division in the direction of Calpes Portus also, first heard of that misfortune[h]: and then the night of *this* day[i], and the next morning[k], June 7: so that from vi. i. 10–26, there must have been one night and two days, June 6 and 7 inclusive.

On this day, as it appears[l], after relieving the Arcadians, Xenophon also arrived at the Calpes Portus, and there passed the night, *πρὸς τῷ λιμένι*. It is to be observed, that he in particular left Heracleia with his division by sea[m]; and the date of his departure having been June 2, we may presume he must have landed some where on the confines of Thrace and the territory of Heracleia, June 4; from which he was continuing his march, *διὰ μεσογαίας*, when he fell in with

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known to have founded many other settlements on the Pontus, this is probably the true account of it; though Skymnus of Chius too, in the Geographi Minores[5], ascribes its foundation to the Bœotians and Megareans, and some time in the reign of Cyrus,

> Καθ' οὓς χρόνους ἐκράτησε Κῦρος Μηδίας,

i. e. circa B. C. 536. The original foundation by the Milesians might have been older than the first correction of the primitive calendar among the Greeks anywhere. If the Bœotians and Megareans were afterwards any way concerned in a fresh settlement there, that might have coincided with the epoch of the Fourth Type, B. C. 517, more nearly than any other; and so have given occasion to the adoption of that as the correction of Heracleia.

[e] v. x. 17–19. [f] vi. i. 2. [g] § 6. [h] vi. ii. 14. 20, 21. [i] § 21–23. [k] 21: cf. 23, 24, 25. [l] vi. ii. 1: cf. i. § 25, 26. [m] v. x. 17–19.

[5] ii. p. 56. 230–235.

the Arcadians on June 6, two days' distance from Calpes Portus.

The day after his arrival is mentioned[n], June 8; and on this day the dead were buried, who had fallen in the late action with the natives of the country: and, as it appears, on the *fifth* day from their death; ἤδη γὰρ ἦσαν πεμπταῖοι. This note of time confirms our arrangements of dates hitherto; for, if June 8 was the fifth day since their death, June 4 must have been the day of their death, as we have assumed it was. The evening of this day occurs next[o]: then the following day[p], June 9. Cheirisophus was now dead[q], φάρμακον πιὼν πυρέττων; and he had begun to be ill at the time of the departure from Heracleia[r], June 2.

The morning after this is next mentioned[s], June 10: and τῇ ὑστεραίᾳ[t], June 11: and the same day again[v], down to sunset, and supper-time[x], and night[y]: and so on, to the next morning[z], June 12, and the ἄριστον of that day. We have then πρωῒ[a], the next day, June 13; the ἄριστον[b],—μεσούσης ἡμέρας[c]—περὶ ἡλίου δύσιν[d]—, and ὀψὲ γὰρ ἦν[e]—all on this day[f], June 13.

From this time forward however an indefinite interval comes in, during which the Greeks were waiting in their fortified camp at Calpes Portus for the arrival of Cleander, the Lacedemonian harmost, from Byzantium; of which mention was first made on a former occasion[g]. This interval must have begun June 14; and during the whole of it, the Greeks are described[h] as ἐξιόντες ἑκάστης ἡμέρας, σὺν τοῖς ὑποζυγίοις καὶ τοῖς ἀνδραπόδοις, and bringing in ἀδεῶς ἤδη πυροὺς κριθὰς οἶνον ὄσπρια μελίνας σῦκα· πάντα γὰρ εἶχεν ἡ χώρα πλὴν ἐλαίου: where, from the mention of wheat as well as barley, we think it must be inferred that the interval in question extended from June 14 to the middle of August at least. The barley-harvest for this quarter might have been ripe by the middle of June; but not the wheat before the middle of July. The corn-ships which brought the produce of the Pontus annually to Athens, as we have seen[i], did not usually return with their lading before the middle of September. Nor can the allusion to the figs, along with the other productions of the season, be understood of an earlier time than the middle or even the end of August[k].

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[n] vi. i. § 9. cf. I. 7.
[o] § 10.
[p] § 10. 14. 18.
[q] § 11.
[r] v. x. 18.
[s] vi. ii. 15. cf. 18.
[t] § 20.
[v] § 25.
[x] § 26.
[y] § 27.
[z] vi. iii. 1.
[a] § 2.
[b] § 3. 21.
[c] § 7.
[d] § 32.
[e] § 31.
[f] v. iii. 2–32.
[g] vi. ii. 18.
[h] vi. iv. 1.
[i] Vol. i. page 514. cf. supra, 82 : 86.

We may conclude then that the arrival of Cleander at last could not have been earlier than the end of August: and there is reason to date it actually on August 31. For after his arrival[l], we have the particulars of one day, relating to the quarrel between him and the Greeks[m]; which we will assume to have been August 31. Then *three* days more, Aug. 31—Sept. 3, before the departure of the army from Calpes Portus under their former commanders[n]; and one day's march, if not more, Διὰ Βιθυνῶν[o] (Sept. 4), before they turned back, and by a day and a night's march took the Bithynians by surprise[o]. Now from the fact that this was a movement made by *night*, as well as by *day*, we may infer that it must have been made at or about the full moon: and the full moon of September this year, by our general Lunar Calendar, is determined to September 4*, the 16th of the Attic Metageitnion. The date of this march back therefore was probably Sept. 5, and the night of that day; and Sept. 6 the date of the surprise of the Bithynians: and these dates, so determinable at last, will presuppose the arrival of Cleander previously, August 31.

After this, the army arrived at Chrysopolis τῆς Χαλκηδονίας[p], on the sixth day; that is, since the distance from Calpes Portus to that quarter, according to Major Rennell's map, was six marches in direct distance, and according to D'Anville, was 100 Roman miles—not earlier than September 12: which would be at the rate of 16 Roman miles a day. At Chrysopolis they stayed seven days[q], Sept. 13–20: and therefore must have passed over to Byzantium[r] on or about September 21.

After this arrival at Byzantium, we lose the continuity of the reckoning of time, so as to render it impossible to reduce the particulars of subsequent events, as we have done those of preceding ones, to their respective dates. It may be collected, from various intimations, that the interval so spent was considerable. First, from its effect on the army; having led to the dispersion of a great part of it[s]: *Διατριβομένου* (*δὲ*) *τοῦ χρόνου πολλοὶ τῶν στρατιωτῶν, οἱ μὲν τὰ ὅπλα ἀποδιδόμενοι κατὰ τοὺς χώρους, ἀπέπλεον ὡς ἐδύναντο· οἱ δὲ . . . εἰς τὰς πόλεις κατεμίγνυντο*: their numbers, which at the last review at Trapezus exceeded 8000, having, as appears soon after[t], by these means been reduced to 6000. Secondly, from the mention of the arrival of a successor both to Cleander, as harmost of Byzantium, and to Anaxibius as navarch of the fleet[v]; which implies a time later than the beginning of the new official year of the Lacedemonians, October 16, by the Spartan calendar, at least: Ἀποπλέοντι δὲ Ἀναξιβίῳ ἐκ Βυζαντίου συναντᾷ Ἀρίσταρχος ἐν Κυζίκῳ, διάδοχος Κλεάνδρῳ Βυζαντίου δὲ ἁρμοστής· ἔλεγε δὲ καὶ ὅτι ναύαρχος διάδοχος Πῶλος ὅσον οὐ παρείη ἤδη εἰς Ἑλλήσποντον. Nor could the coming of Aristarchus have been so early as October 16; for the end of Anaxibius' term of command, and consequently the beginning of that of his successor, is clearly recognised only after this[x], about the time when the army had agreed to enter the service of Seuthes: on which very day we find them observing, Ὅτι *χειμὼν γὰρ εἴη, καὶ οὔτε οἴκαδε ἀποπλεῖν τῷ βουλομένῳ δυνατὸν εἴη, διαγενέσθαι τε ἐν φιλίᾳ οὐχ οἷόν τ' εἴη, εἰ δέοι ὠνουμένους ζῆν*[x]. Even before this, when they were lying near Perinthus, after the arrival of Aristarchus in these parts[y], as they were reminded by Xenophon afterwards, it was the middle of winter[z]: *Οὐκ εἰς μὲν Πέρινθον, εἰ προσίητε τῇ πόλει, Ἀρίσταρχος ὑμᾶς ὁ Λακεδαιμόνιος οὐκ εἴα εἰσιέναι; . . . ὑπαίθριοι δὲ ἔξω ἐστρατοπεδεύετε· μέσος δὲ χειμὼν ἦν.* He reminds them on the same occasion[a] that having entered the service of Seuthes, *after* this time, and served him in fact about two months[b], they had nevertheless past *through the winter*, διαχειμάσαντες (εἶεν) *ἐν ἀφθόνοις τοῖς ἐπιτηδείοις κ', τ. λ.* And with this we may compare vii. vi. 9: where the Arcadian accuses Xenophon of having enriched himself in the service of Seuthes, while the rest of the army were starving: Ἔνθα δὴ ἡμεῖς μὲν τὸν δεινὸν χειμῶνα στρατευόμενοι καὶ νύκτα καὶ ἡμέραν οὐδὲν πεπάμεθα: a representation, so far as the severity of the season was concerned, justified by the actual history of the service in question. But it was *now* past; and it had lasted about *two* months, beginning at, or soon after, the middle of winter. These intimations, in our opinion, authorize the inference that the interruption of the continuity in the details of events, which began with the arrival at Byzantium[c], September 21, must have lasted till the middle of winter[d], Dec. 25 or 26, the same year at least.

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* There was a lunar eclipse June 7, at 12. 15 P.M., B.C. 400, for the meridian of Paris, which confirms the accuracy of our Lunar calendar in this date, Sept. 4.

[k] Himerius, Ecloga xx. § 4, p. 270. Ἀλλ' οὐδὲ ὀπωρίζειν ἔξεστιν ὅταν ἐθέλωσιν ἄνθρωποι, ἀλλὰ κἂν συκάζειν ἐθέλῃς ἀναμένεις τὴν ὥραν τὴν τῆς ὀπώρας ὁμώνυμον. Of the time when figs would be ripe, see our Origines Kal. Italicæ, iii. 415. *n.*

[l] vi. iv. 5.

[m] § 5–35.

[n] § 36.

[o] § 37.

[p] iv. iv. 38.

[q] vi. iv. 38.

[r] vii. i. 7—vii. ii. 3.

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[s] vii. ii. 3. [t] vii. 23. [v] ii. 5. [x] vii. ii. 11–13: iii. 13. [y] vii. ii. 5–9: 10, 11: 28. [z] vii. vi. 24. [a] § 31. [b] vi. 1: v. 4, 5.

This inference is of much importance to the chronology of the remainder of the Anabasis; especially to the history of the engagement with Seuthes. For, if we may assume what follows to have begun at this point of time, B. C. 400, we have two days' proceedings[e]; and on the night of the second, Xenophon's interview with Seuthes[f], and his return to the camp the same night: in order to which he had to ride 60 stades and back[g], or 12 of our miles at least. Now, for this to be done in the middle of a Thracian winter, a moonlight night would certainly have been necessary. And such a night we have no difficulty in finding in the present instance; forasmuch as there was a lunar eclipse Dec. 1, 0.30 P. M. for the meridian of Paris, this year, and consequently a full moon again not earlier than Dec. 30 or 31.

And here it is also to be observed that B. C. 400–399 corresponded to Æra Cyclica 3608; and Thoth 1 at midn. that year to Dec. 4 at midn. B. C. 400: and therefore Phaophi 1, at midn. the next month, to Jan. 3 at midn. B. C. 939. We are at liberty to assume that the Thracian calendar at this time, and in this quarter, was the same with the Primitive; and it will follow, that no time could have been more appropriate *per se*, or more likely *a priori* to have been fixed on, for entering the service of Seuthes, than just at the end of one of its months, or just at the beginning of another.

It appears, accordingly, that when Xenophon had both had his interview with Seuthes, and returned to the army, they decided to enter his service the very next day[h]; and having set out forthwith[i], entered on actual service at midnight that same night[k]: which is an argument both of a moonlight night and of the end or the beginning also of one of the months of the Thracian calendar. Let us assume that Xenophon had his interview with Seuthes on the night of Jan. 1, B. C. 399, the night of the full moon, or the night after it; and that the army entered his service on the night of Jan. 2, the first of the primitive Phaophi, reckoned from 6 P. M.: and all will be rendered consistent.

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[c] vii. i. 7. [d] vii. vi. 24. [e] § ii. 12–14. [f] 14–17. cf. vii. i. 5: ii. 24: 25: 10, 11. [g] vii. ii. 17: iii. 1.

This date then being assumed as the Julian epoch of the transactions which now begin to be recorded, we may follow the course of events for the next two months with considerable certainty. First, we have morning[l], Jan. 3, ἐπεὶ δὲ ἡμέρα ἦν: then midday[m], and so on, to pitching time the same day[n]; one of the first things mentioned in the history of the day being the arrival of the army, εἰς χιόνα πολλήν[o]—a very probable contingency for the climate of Thrace on Jan. 3.

The next day also is mentioned[p], Jan. 4; and on this day, both snow and cold[q]: Ἦν δὲ χιὼν πολλὴ, καὶ ψύχος οὕτως, ὥστε τὸ ὕδωρ ὃ ἐφέροντο ἐπὶ δεῖπνον ἐπήγνυτο, καὶ ὁ οἶνος ὁ ἐν τοῖς ἀγγείοις, κ', τ. λ.—and many of the Greeks themselves lost their noses, or their ears, for want of protection from the cold; which might very well explain the grounds of the complaint supra, about τὸν δεινὸν χειμῶνα. A night and day, during which military operations were still going on, are next mentioned[r]; though whether Jan. 5 or 6, does not appear: only, as these things were going on by night as well as by day, we may suppose it could not have been long after the full of the moon, December 31 or January 1. After this there is mention of ἡμέραι οὐ πολλαί[s]: and then of a day as such, and the ensuing night[t], when the native subjects of Seuthes, called οἱ Θυνοὶ, attacked the quarters of Xenophon in one of their own κῶμαι: Καὶ ἡγεμὼν μὲν ἦν ὁ δεσπότης ἑκάστης τῆς οἰκίας· χαλεπὸν γὰρ ἦν ἄλλῳ τὰς οἰκίας σκότους ὄντος ἀνευρίσκειν ἐν ταῖς κώμαις: from which we may infer that now the nights were dark all through, and that this attack must have been made about the middle of January. The next day also is mentioned in its turn[v].

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[h] vii. iii. 1. 2-7: 7-14. cf. ii. 17-iii. 14.
[i] vii. iii. 15-33 34-40.
[k] § 40.
[l] vii. iii. 41.
[m] § 44.
[n] § 48.
[o] § 42.
[p] vii. iv. 1.
[q] § 3.
[r] vii. iv. 6.
[s] § 12.
[t] § 14.

Soon after this the first month's service is said to have been completed[x]; which would be the case on the first of the primitive Athyr, reckoned from 6 P.M—Feb. 1, at 18 hours, or Feb. 2, at midn. And now the army received 20 days' pay out of the 30 which were due[y]: Τὸν δὲ μισθὸν ἀποδίδωσιν, ἐξεληλυθότος ἤδη τοῦ μηνὸς, εἴκοσι μόνον ἡμερῶν. And though the particulars of the service are no longer given from this time forward, yet it appears the army continued in the employment of Seuthes, a month more at least, down to the arrival of the two Lacedemonian deputies, Charminus and Polynicus; who came to engage the soldiers of Cyrus, as part of the forces intended to serve under Thimbro, or Thibro, in Asia Minor, against Tissaphernes[z]: Ἐν δὲ τούτῳ τῷ χρόνῳ σχεδὸν ἤδη δύο μηνῶν ὄντων ἀφικνοῦνται Χαρμῖνός τε ὁ Λάκων καὶ Πολύνεικος παρὰ Θίμβρωνος. They came however to announce not the actual, but the expected, arrival of Thimbro; and their appearance at this juncture, together with the purpose for which they came, in our opinion is a satisfactory proof that the end of the second month's engagement with Seuthes was later than the earliest possible term of the resumption of military operations among the Greeks, after the winter, the ἐὰρ ἀρχόμενος, or Zephyri Flatus, the first or second week in February; as March 3 the last day of the primitive Athyr would be.

The engagement with Seuthes indeed appears to have lingered on for several days even in a third month, so as to make the arrears of pay ultimately due not less than 50 days, and the entire length of the service, from first to last, not less than 70 days*. It is unnecessary however to continue our review of the dates in the Anabasis beyond this point of time. The delivery of the force to Thimbro by Xenophon[a], soon after, might have been so made, that the beginning of their term of service in the pay of the Spartan government, might have borne date from the first of the sixth month in

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* The terms on which they entered the service of Seuthes were *these*: That every common soldier should receive a Kyzikene stater per month, every lochage two, and each of the strategi four[1]. And this seems to have been the general rule of the military service among the Greeks, that the daily pay of the lochage should be twice as much as that of the common man[2].

[v] vii. iv. 21. [x] vii. v. 4. [y] vii. v. 4. cf. v. 9. 10. [z] vii. vi. 1

[1] vii. ii. 36. iii. 10. [2] Cf. Suidas, *Διμοιρίτης*: and supra, vii. vi. § i. 7

The Kyzikene stater[3], in the time of Demosthenes (when the Oration contra Phormionem, at least, was delivered), passed current for 28 Attic drachmæ[4]; and in these times it might be worth 30 drachmæ. In fact, by comparing together i. iii. 21. supra, where Cyrus promised to raise the pay of his soldiers from a daric, to a daric and an half, a month, with v. vi. 23. and v. x. 4. where the Kyzikene stater is evidently proposed as the highest rate of pay per month which was to be expected or earned at this time, we may reasonably come to the conclusion that the Kyzikene stater in these times, and the daric and an half, were as nearly as possible the same in value, and each of them in Attic money equivalent to 30 drachmæ.

The numbers which entered the service of Seuthes on this occasion are put by Xenophon at 6000[5]; and probably this might not be much more or much less than their actual amount. Among these the number of *στρατηγοὶ*, or generals of division, does not seem to have been more than four[6]. The number of *λοχαγοὶ* must be uncertain, though it was probably either one in 100, or one in 50[7]. And even to assume the latter, their actual amount could not have exceeded 120; and on the other supposition could have been no more than 60. And neither of these need prevent our assuming that one with another, both officers and common men, the terms of the engagement of Seuthes with the *Κυρεῖοι* were such, that at the rate of a Kyzikene stater a month, or a drachma a day, among 6000 men, he was bound to pay 6000 drachmæ, or one talent, a day, as long as they continued in his service.

Now one month's actual service is plainly mentioned[7], and the issue of 20 days' pay (20 talents) on account of it also. The completion of another month just about the time of the coming of the Lacedemonian commissioners is intimated likewise[8]: and besides these, a variety of delays, as the narrative shews[9], were so interposed (and on purpose) that by the time all the arrears were actually paid off, the day before that was done, when Xenophon had his final interview with Seuthes[10], they had accumulated to 50 talents[11].

It is not necessary to suppose this was 50 talents exactly; but if it was any thing between 49 and 50, then, along with the 20 already paid, at the

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[a] viii. vii. 57–viii. 24.

[3] Cf. Photius, and Suidas, in *Κυζικηνοὶ Στατῆρες*.

[4] xxxiv. § 27.

[5] vii. vii. 23. cf. Diodor. xiv. 37. which makes them 5000.

[6] Cf. vii. v. 3, 4. 10. cf. i. ii. 25 : iii. iv. 21, 22 : iv. viii. 15.

[7] vii. v. 4.

[8] vii. vi. 1. cf. v. 9.

[9] vii. vi. 1–vii. 56.

[10] vii. vii. 20–25.

[11] vii. vii. 25. 53–55.

the Spartan calendar, March 13, this year; and it might be inferred from vii. vi. 1. 7. that it would bear date from the beginning of some one of its months. But the remainder of the Anabasis belongs to the same history as the Hellenica; in the account of which the former[b] joins the latter[c], with the passage across the Hellespont to Lampsacus[d]. We shall here therefore take our leave of this subject; having, as we trust, effected the purpose which we had in view, the illustration and confirmation of the Spartan Metonic correction by the testimony of the Anabasis—and made good the proposition with which we set out—That the Anabasis contains on the whole two years; ending as nearly as possible at the same time of the natural or Julian year at which it begins: and in the course of its details reflects no little light, not only on the Spartan calendar, but on many others of antiquity, the Primitive, the Persian, the Armenian, the Ambraciot, the Corinthian, the Arcadian, and the Heracleote.

rate of a talent a day, it will imply that the army had been in the service of Seuthes on the whole 69 or 70 days. Let us suppose the former, and it will follow that, if they entered his service as we have assumed on Jan. 3, they must have continued in his service in some sense or other down to March 12; i. e. the last day of their engagement with Seuthes was March 12: and this leaves us free to suppose that the first day of their engagement with the Lacedemonians, through their two deputies on the spot, was the very next day, as we have concluded; the first day of the sixth month in the Spartan calendar for the time being.

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[b] vii. viii. 1.

[c] iii. 1. 6.

[d] Cf. Hellenica, iii. i. 6. with Anab. vii. viii. 7. 8–20. 20–23, 24. more particularly. There are differences in these several accounts, though both relate to the same time and occasion; especially in what concerns the actual arrival of Thimbro, and the assumption of the command by him: which the Hellenica dates before the submission or reduction of Pergamus, the Anabasis after it.

# DISSERTATION V.

## *On the second Type of the Hellenic Octaëteris.*

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## CHAPTER I.

### *On the Bœotian Correction of the Primitive Solar Year.*

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### Section I.—*On the Bœotian date of the Battle of Platæa.*

*Ταύτην τὴν μάχην ἐμαχέσαντο τῇ τετράδι τοῦ Βοηδρομιῶνος ἱσταμένου κατ' Ἀθηναίους, κατὰ δὲ Βοιωτοὺς τετράδι τοῦ Πανέμου φθίνοντος, ᾗ καὶ νῦν ἔτι τὸ Ἑλληνικὸν ἐν Πλαταιαῖς ἀθροίζεται συνέδριον, καὶ θύουσι τῷ Ἐλευθερίῳ Διῒ Πλαταιεῖς ὑπὲρ τῆς νίκης. τὴν δὲ τῶν ἡμερῶν ἀνωμαλίαν οὐ θαυμαστέον, ὅπου καὶ νῦν, διηκριβωμένων τῶν ἐν ἀστρολογίᾳ μᾶλλον, ἄλλην ἄλλοι μηνὸς ἀρχὴν καὶ τελευτὴν ἄγουσιν*[e].

The date of which Plutarch was speaking was that of the battle of Platæa. This date has been circumstantially investigated; and it has been shewn that, though he himself assigned it a double date, one, (as in this instance,) the fourth, another the third, of the Attic Boëdromion, yet, both from his own testimony, and from the induction of particulars before and after the battle, it was certainly to be inferred that the true date was the third of the month in question[f]. And here he tells us the corresponding Bœotian date, still preserved by tradition, and commemorated by the annual meeting of the Greeks, and the annual sacrifice to Jupiter Eleutherius at

[e] Plutarch, Aristides, xix.

[f] Vol. i. 406. 417.

Platæa, was the τετρὰς φθίνοντος, or 27th, of the Bœotian month Panemus: from which it follows that the 27th of Panemus, and the third of Boëdromion, at the time of the battle, must have been the same. With this datum, it is not difficult to trace back the Bœotian Correction itself to its original epoch.

## SECTION II.—*Investigation of the epoch of the Bœotian Correction, from the relation of the Bœotian date of Platæa to the Attic.*

The names of the months in the Bœotian calendar, and the corresponding ones in the Attic, is a question which we reserve for future consideration. At present, we assume that neither the Bœotian nor the Attic months are to be known asunder, except by their order, as the first, the second, the third, and the like, respectively.

To begin then with the fact which has thus been ascertained, supposed to be the only one known as yet, of the relation of these calendars to each other; viz. That B. C. 479, the 27th of the month called Panemus, in the Bœotian, fell on the 3d of the month called Boëdromion, in the Attic: it will follow from it, first, that the *first* of the Bœotian Panemus must have fallen on the *sixth* of the Attic Metageitnion. And if we may assume that as Metageitnion was the *eighth* month in the Attic calendar, so Panemus was the *eighth* in the Bœotian, it will follow next that B. C. 479, such was the relation of these calendars to each other, that the *first* of the *eighth* month in the one was falling on the *sixth* of the *eighth* in the other*. And as the Attic Metageitnion, B. C. 479, was bearing date August 2, it will follow thirdly that the Bœotian Panemus, at the same point of time, must have borne date August 7. And as the true mean new moon of

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* That the Bœotian Panemus corresponded to the Attic Metageitnion is distinctly asserted by Plutarch, Camillus, xix. If however the proper epoch of the former in terms of the latter was the *sixth*, it is manifest that the last five days of Panemus in strictness would be the first five or six of Boëdromion; and consequently that the Bœotian Panemus in strictness must have corresponded partly to the Attic Metageitnion and partly to the Attic Boëdromion.

Metageitnion, B. C. 479, was falling on August 23 *, it will follow fourthly that the true mean new moon of a given month, B. C. 479, was falling on the 22d of the Attic, and the 17th of the corresponding Bœotian month: from which it will also follow that, at a given time, and with reference to the same lunar month, while the civil new moon by the Attic calendar was 21 days complete behind the mean, the civil new moon in the Bœotian was 16 days behind it.

Now when the nature of the Octaëteric correction is once understood, nothing is necessary but the mere statement of this fact in order to reason from it as follows: viz. That if the Bœotian Lunar calendar, B. C. 479, was only *sixteen* days behind the moon while the Attic was *twenty-one*, they could not both have begun to proceed from one and the same *epoch*. And if they set out at different times, the Bœotian must have set out after the Attic. The same kind of lunar calendar must have been a certain length of time in use among the Athenians before it began to be so among the Bœotians. The question is, what length.

Now, forasmuch as it has been discovered that in a particular instance there was a difference between the numenia of a certain month in one of these calendars and that of the corresponding one in the other, which amounted to *five* days exactly; let us be permitted to call this difference the Radical or Epochal Difference. There is no reason to suppose that this difference was peculiar to these two months; or that the same distinction would not have held good between the numeniæ of any other two months. If then the numenia of the eighth month in the Bœotian, B. C. 479, was falling five days later than that of the eighth in the Attic, we may assume that the numenia of the seventh in the former was falling just as many days later than the numenia of the seventh in the latter; and so on. Consequently, if the numenia of the first month in the Attic calendar, B. C. 479, was

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* By the calculation referred to vol. i. 412. B. C. 479, we had the mean full moon of August for the meridian of Greenwich.

| | | h. | m. | s. | |
|---|---|---|---|---|---|
| August | 8 | 22 | 18 | 2 | m. time from midn. |
| Add ½ Lunation | 14 | 18 | 22 | | |
| Mean new moon August | 23 | 16 | 40 | 2 | m. time from midn. |

bearing date Jan. 8[g], the numenia of the first in the Bœotian must have been bearing date Jan. 13.

Now B. C. 479 was the second year of the Attic Octaëteric Cycle[g]: and without assuming at present that the Bœotian Cycle took its rise in the second year of the Attic, yet if it only came into being some time later than the Attic, and subject from the first to this difference of epochs, which we have called the radical one, still we may contend it must ever after have proceeded along with the Attic, subject to this difference also. Nor could this difference at a given time, later than the origin of both cycles, have any thing to do with the relation of the civil lunar reckoning in each, to the mean or the true; or at least in either of them any more than in the other. This is proved by the fact that B. C. 479, while the Attic calendar was 21 days behind the moon, the Bœotian was 16 behind it: not indeed so much as the Attic, but quite as much in proportion as the Attic itself, if there was a difference of five days between them from the first. It is self-evident that but for this difference, the Bœotian Panemus, B. C. 479, would have been as much behind the moon as the Attic Metageitnion; from which it must necessarily follow that the Bœotian calendar must have taken its rise some time or other, subject to this difference from the Attic even then—and must have gone on along with it, preserving the same relation to it as at first, and changing its relation to the moon, or to any thing else to which both might be referrible in common, only in the same proportion as the Attic.

Now an epochal difference of five days between an earlier calendar and a later, both regulated by the Octaëteric cycle, presupposes the lapse of three cycles at least, before it could begin to hold good. At the end of one cycle, this difference would amount only to one day; at the end of two only to three days; at the end of four, it would already amount to six days. At the end of three cycles, or 24 years only, would it necessarily be more than four, and yet less than six: and in fact, cyclically reckoned, (as the Table, which we proposed in the first volume of this Work, demonstrates[h],) neither more nor less than five days complete.

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[g] Vol. i. 405.

[h] Vol. i. 42.

If then there was an epochal difference between the Attic and the Bœotian calendar, amounting to five days, the inference which we draw from that fact is *this*; That, while the Bœotian calendar must have been regulated by the same kind of cycle as the Attic from the first, the age of the Bœotian cycle could not have been the same with that of the Attic; the Bœotian must have been 24 years at least younger than the Attic.

The same conclusion will follow, from the relation of the civil to the mean new moon, in this calendar, B. C. 479; which it appears just then was such that the former was *sixteen* days behind the latter. That is, the lunar Precession by the Bœotian calendar, B.C. 479, amounted to *sixteen* days; and sixteen days was the amount of the precession, which in the Octaëteric cycle was liable to be generated in eleven cycles, or 88 years. If then the Bœotian numeniæ, B. C. 479, were 16 days behind the moon, the calendar, B. C. 479, was 88 years old at least; and its epoch or origin must have gone as far back as B. C. 479 + 88, or B. C. 567.

This year corresponded to Cycle iv. 2. of the Attic correction; and the calendar at that time being three cycles, or 24 years old, complete, the precession amounted to five days; and while the proper Julian epoch of the civil numenia was still the same as at first, January 8, the proper Julian epoch of the corresponding lunar numenia was five days later, January 13: and a lunar correction, adopted at this point of time, howsoever similar to the Attic in all other respects, yet attached to the true mean lunar date for the time being, must have borne date January 13, not January 8. We have seen that the first month in the Bœotian calendar, B. C. 479, regularly deducible from that of the eighth the same year, August 7, must have borne date Jan. 13: and if we may only assume that January 13, B. C. 479, was the epoch of a cycle in the decursus of that calendar from the first until then, it will follow, that B. C. 567, just 88 years before, must have been so too. And if the lunar precession, which existed *de facto* in B. C. 479, could not have been generated in less than eleven cycles, or 88 years, and must in fact have been generated by the continuous decursus of eleven cycles, or 88 years, it will follow, that 88 years, or eleven cycles, before

B. C. 479, i. e. B. C. 567, this precession was 0; and therefore B. C. 567 must have been the epoch of the decursus itself. It remains only to confirm this conclusion by the testimony of the primitive calendar.

### SECTION III.—*Confirmation of the epoch by the testimony of the Primitive Calendar.*

Æra Cyclica 3440 the primitive Thoth, or primitive Gamelion, is seen from our General Tables to have fallen Jan. 12 at 18 hours, or Jan. 13 at midnight, B. C. 567. The Bœotian lunar correction of the primitive solar calendar, if attached to this day, was attached to the first of Thoth, or first of Gamelion, for the time being. The same day was also the date of the true new moon of January, B. C. 567, as will appear hereafter from actual calculation. At present, we need not appeal to any proof of that fact but *this;* That there was a solar eclipse June 8, at 11. 30 P. M. Paris this year; and June 8, as our Bœotian calendar shews, at 18 hours, was the first of the sixth month in the first year of its first cycle. If the *νουμηνία* of the sixth month this year was true to the moon, the *νουμηνία* of the first must have been so too.

There can be no question therefore that the date of the true new moon in January, B. C. 567, and that of the primitive Gamelion Æra Cyclica 3440, met together and coincided, Jan. 13; and that being the case, we see in that fact the reason why, if the Bœotians were proposing to adopt a lunar, instead of the old solar and equable, calendar, they should have fixed on this year, B. C. 567, and on this day in that year, January 13, as the fittest for their purpose. The same motive no doubt influenced them, which had induced the Athenians, 25 years before, to fix the epoch of the Attic correction to the first of Gamelion Æra Cyclica 3415, Jan. 19, B. C. 592; viz. the fact that the first of the primitive Gamelion was falling at that time on Jan. 19, and Jan. 19 on the new moon. This coincidence would hold good again, 25 years afterwards, Æra Cyclica 3440, B. C. 567: and the lunar correction, substituted for the solar calendar at that time among the Bœotians, would take it up with just as little violence to the preexisting course of things, as the Attic had done 25 years before.

There is the same reason then to conclude that this Bœotian correction was purposely substituted for the primitive solar calendar, Æra Cyclica 3440, B. C. 567, as the Attic, Æra Cyclica 3415, B. C. 592; and that the former was taken directly from the preexisting primitive calendar, as that the latter was. And this Bœotian correction being both the same in general with the Attic, and distinct from it in particular, and the next, in the order of time, which appears to have been derived by precisely the same process from the preexisting solar year, it deserves to be proposed as the proper exemplar of the second Type of the Greek Octaëteris in general. Nor can the reader fail to observe by what a singular and critical coincidence the date of this correction, thus determined to Æra Cyclica 3440, B. C. 567, turns out to have been two (but only two) years later than the date which we have seen reason to assign to the Works and Days of Hesiod; who, though a native of Ascra in Bœotia and writing there, knew of no form of the lunar correction of the primitive solar year when he was writing, except the Attic of Solon.

## SECTION IV.—*Type or Exemplar of the Bœotian Octaëteris; and verification thereby of the Bœotian date of Platæa.*

This Bœotian correction then having been so evidently derived from the same source as the Attic, and so evidently regulated from the first by the same kind of cycle; we will assume that in every thing but the names of the months, and the epochal difference which has been pointed out, the two corrections were the same. The following will be the scheme of the first Bœotian cycle; and the scheme of the first cycle of this kind will be the type or exemplar of every other *.

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* Cf. vol. iii. Appendix, Table ii.

### *Hellenic Octaëteris, Type ii.*

*Epoch, January* 13, *B. C.* 567.

Lunar Correction of the Bœotians.

| B. C. | B. C. | Cycle. | Midnight. | |
|---|---|---|---|---|
| | 567 | i. | January | 13 |
| | 566 | ii. | ——— | 2 |
| 566 | *565 | *iii. | December | 22 |
| | 564 | iv. | January | 9 |
| 564 | 563 | *v. | December | 29 |
| | 562 | vi. | January | 17 |
| | *561 | vii. | ——— | 6 |
| 561 | 560 | *viii. | December | 25. |

The twelfth cycle of this type would begin to bear date January 13, B. C. 479; the corresponding year of the Attic one, January 8. In order then to the verification of the date of Platæa, in terms of each alike, we have nothing to do but to compare them for the first eight or nine months of this year.

| *Bœotian Calendar,* Cycle xii. 1. | | | | | *Attic Calendar,* Cycle xv. 2. | | | |
|---|---|---|---|---|---|---|---|---|
| Month. | Days. | | | | Month. | Days. | | |
| i. | 29 | January | 13 | B. C. 479. | i. | 29 | January | 8 |
| ii. | 30 | February | 11 | | ii. | 30 | February | 6 |
| iii. | 29 | March | 13 | | iii. | 29 | March | 8 |
| iv. | 30 | April | 11 | | iv. | 30 | April | 6 |
| v. | 29 | May | 11 | | v. | 29 | May | 6 |
| vi. | 30 | June | 9 | | vi. | 30 | June | 4 |
| vii. | 29 | July | 9 | | vii. | 29 | July | 4 |
| viii. | 30 | August | 7 | | viii. | 30 | August | 2 |
| | | | | | ix. | 29 | Sept. | 1. |

| | | | |
|---|---|---|---|
| 27th of the viiith month,<br>27th of Panemus | Sept. 2. | 3rd of the ixth month,<br>3rd of Boëdromion | Sept. 2. |

The eighth month in the Bœotian calendar being called Panemus, and the ninth in the Attic being called Boëdromion; we thus see that the 27th of the former this year agreed exactly with the 3rd of the latter; both having fallen on the Julian September 2.

## SECTION V.—*On the further confirmation of the Epochal Difference of the Attic and Bœotian Corrections respectively, by the date of the ceremony of the* Πιθοιγία *in the former, and that of the* Ἀγαθὸς Δαίμων *in the latter.*

The difference in the Bœotian and the Attic corrections respectively, to which we have given the name of the Epochal or Radical Difference, is, as we have seen, an element in the comparison of one of these calendars with the other of so much importance and such constant applicability, that it may well deserve to be illustrated and confirmed, if possible, more at large than it has yet been. And there are two passages of Plutarch which, if we mistake not, will do this for it.

i. Τοῦ *νέου οἴνου* Ἀθήνῃσι *μὲν ἑνδεκάτῃ μηνὸς κατάρχονται,* Πιθοιγίαν *τὴν ἡμέραν καλοῦντες. καὶ πάλαι γε ὡς ἔοικεν εὔχοντο, τοῦ οἴνου πρὶν ἢ πιεῖν ἀποσπένδοντες, ἀβλαβῆ καὶ σωτήριον αὐτοῖς τοῦ φαρμάκου τὴν χρῆσιν γενέσθαι. παρ' ἡμῖν δὲ ὁ μὲν μὴν καλεῖται* Προστατήριος· *ἕκτῃ δ' ἱσταμένου νομίζεται θύσαντας* Ἀγαθῷ Δαίμονι *γεύεσθαι τοῦ οἴνου μετὰ* Ζέφυρον. *οὗτος γὰρ μάλιστα τῶν ἀνέμων ἐξίστησι καὶ κινεῖ τὸν οἶνον· καὶ ὁ τοῦτον διαφυγὼν ἤδη δοκεῖ παραμένειν βέβαιος*[k]—ii. Καὶ *μὴν οἴνου γε τὸν νέον οἱ πρωϊαίτατα πίνοντες* Ἀνθεστηριῶνι *πίνουσι μηνὶ μετὰ χειμῶνα. καὶ τὴν ἡμέραν ἐκείνην ἡμεῖς μὲν* Ἀγαθοῦ Δαίμονος Ἀθηναῖοι *δὲ* Πιθοιγίαν *προσαγορεύουσι*[l].

We know from various sources of information (as we may have occasion to shew on a future opportunity), that the Anthesteria, Lenæa, or Dionysia *ἐν Λίμναις*, among the Athenians consisted of three distinct ceremonies, the Pithoigia, Choës, and Chytri, appropriated to three different days of the month; the first to the eleventh of Anthesterion, the second to the twelfth, and the third to the thirteenth. With respect then to the date of the Πιθοιγία in the Attic calendar, the testimony of Plutarch is corroborated by that of much older authorities.

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[k] Symposiaca, iii. Problema vii. cap. 1.

[l] Ibid. viii. x. 3. Confer Hesiod. Opp. et Dies, 366. Proclus: *Καὶ ἐν τοῖς πατρίοις ἐστὶν ἑορτὴ Πιθοιγία, καθ' ἣν οὔτε οἰκέτην οὔτε μισθωτὸν εἴργειν τῆς ἀπολαύσεως τοῦ οἴνου θεμιτὸν ἦν, ἀλλὰ θύσαντας πᾶσι μεταδιδόναι τοῦ δώρου τοῦ Διονύσου κ', τ. λ.* Conf. Tzetzes in loc. also. Hesychius, Πιθοίγια· *ἑορτὴ* Ἀθήνῃσι.

Now, while the date of this ceremony in the Attic calendar was thus the eleventh of the month, in the Bœotian it was the sixth; and if there is no reason to suppose this was not the case long before the time of Plutarch, the distinction in question attests and authenticates the epochal difference of the calendars from the first. It is self-evident that, if we take that difference into account, the *sixth* of the month in one is just the same thing as the *eleventh* in the other; and take any month we please in one of these calendars, and the corresponding month in the other — (Ἑρμαῖος, for example, in the Bœotian, and Ἀνθεστηριὼν in the Attic—) yet the former bearing date February 11 and the latter Feb. 6, it is self-evident that the Ἀγαθὸς Δαίμων, the 6th of the month in the former, and the Πιθοιγία, the 11th in the latter, must have been the same; each of them being the same Julian term, February 16.

To account therefore for the coincidence of the dates of these two ceremonies in their respective calendars from the first, nothing is necessary except to suppose that, when the Bœotians adopted the same kind of correction as the Attic in general, they adopted this ceremony also in particular; and therefore fixed it to the same day in their calendar to which it had been previously attached in the Attic: in which case it could not fail to be a standing memorial of the original difference of epochs between them. Or what is equally probable *a priori*, and would be more consistent with the account of the institution, as given by Plutarch; without taking this ceremony from the Attic calendar, they attached it to its proper date in their own, for reasons common to both calendars alike.

The reason assigned by Plutarch for fixing the ceremony of the Ἀγαθὸς Δαίμων in the Bœotian calendar to the 6th of the month, and that of the Πιθοιγία in the Attic to the 11th, when it comes to be inquired into, is such, that if there was this difference of epochs between the two calendars originally, a ceremony like this, the same in other respects, would be determined to the 11th in the one and the 6th in the other. Πιθοιγία, with the ellipsis of ἡμέρα, literally denoted the day of the opening of the Πίθοι, the jars or casks; the day of the broaching of the wine of the last year's make. We have seen that there was a stated time for bringing it home, which gave the name of Lenæon to the month in which it was done, in the calendar of Ascra at least[m]; and Pliny too, on the authority of Hyginus, speaks of this time as coinciding with the middle of winter[n]—seven days at least from the solstice. The first opening of the wine, thus brought home and jarred and laid up at or about the solstice, was this ceremony of the Πιθοιγία in the Attic, the Ἀγαθὸς Δαίμων in the Bœotian calendar; and the observable circumstance in Plutarch's specification of the date of each is this of Μετὰ Ζέφυρον: a designation which every one, familiar with the language of the Parapegmata of antiquity, will recognise to have been meant of that particular term in the natural year, called by the Greeks the Ζεφύρου πνοὴ, and by the Latins the Flatus Favonii, and generally assigned as the first of the divisions of the year in the order of the seasons; the Ἀρχὴ ἔαρος or Veris initium, from its earliest possible date *.

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* As we have had frequent occasion to refer to this natural phenomenon, we propose at this period of our work, not only for the sake of the argument in the text, but also for the illustration of former, and possibly of future, allusions to this subject, to collect the testimonies to it which have fallen in our way. The object of these citations will be to shew the recognition of this phenomenon, from the earliest times, both as a matter of fact, and as one of the divisions of the natural year; the earliest in the order of succession, the first natural token of returning spring, and the middle point, or nearly so, between the winter solstice and the vernal equinox. These testimonies are too numerous to allow of our making any observations upon them, nor indeed is there any occasion to do so, as they sufficiently explain themselves. We shall be content with stating them, and, as far as may be, in the order of time; beginning with the oldest, next to those which might be produced from Homer or Hesiod.

We may however premise that, according to the usual practice of the grammarians of antiquity in finding out an etymon for every word, whether requiring one, or capable of one, or not, the Greek grammarians derive the name of Zephyrus, ἀπὸ τοῦ τὸ ζῆν φέρειν; the Latin that of Favonius, sometimes from *Faba*, the Latin for a bean, sometimes from *Faveo*, sometimes from *Foveo*: and though none of these etymologies in our opinion is entitled to any consideration, they all shew the estimation in which the west wind was held, and what effects on the natural world were supposed to follow upon its beginning to blow: Ζέφυρος, ὁ τὰ πρὸς τὸ

[m] Vol. i. 255, 256 *n*.

[n] H. N. xviii. 63.

*ζῆν φέρων· ἔαρος γὰρ ἄρχεται πνεῖν*[1]—*Ζέφυρος· ὁ τὸ ζῆν ἡμῖν φέρων· κατὰ γὰρ τὴν τοῦ ἔαρος ὥραν*[2],

*Ζεφυρίη πνείουσα τὰ μὲν φύει ἄλλα δὲ πέσσει*[3]—

*Φάβα Ῥωμαίοις τὸ ἔτνος ἐδόκει καλεῖν, ἀπὸ τοῦ Ζεφύρου, οὗ καταρχομένου πνεῖν πρῶτος πέφυκεν οὗτος βλαστάνειν καρπός. φαβώνιος δὲ κατ' αὐτοὺς ὁ ζέφυρος καλεῖται. ὅθεν καὶ ζεφυρίτης ὁ Μάρτιος, ὥσπερ . . . σεμεντίλιος ὁ Ὀκτώβριος, ἀπὸ τοῦ σπόρου*[4]—Zephyrus Græco nomine appellatus; eo quod flores et germina ejus flatu vivificentur. hic Latine Favonius dicitur, propter quod foveat quæ nascuntur: unde est illud,

Et Zephyro putris se gleba resolvit.

Austro autem flores solvuntur, Zephyro fiunt[5].

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i. *Ἐν Θάσῳ πρωῒ τοῦ φθινοπώρου χειμῶνες . . . ἤδη δὲ μεθ' ἡλίου τροπὰς χειμερινὰς, καὶ ἡνίκα Ζέφυρος πνεεῖν ἄρχεται, ὀπισθοχειμῶνες μεγάλοι*[6]—*Ἐπιχάρμῳ, περὶ Πληϊάδος δύσιν ὁμοῦ ὀδύνη . . . αὐχμοὶ πολλοὶ μετὰ ζέφυρον ἐγένοντο μέχρις ἰσημερίας φθινοπωρινῆς*[7]—*Τῇ Κλεομένεος (γυναικὶ) περὶ ζεφύρου πνοὰς κ', τ. λ*[8]—*Μετὰ ζέφυρον αὐχμοὶ ἐγένοντο μέχρις (ἡμέρας) ἰσημερίας μετοπωρινῆς*[9]—*Ἐπὴν δὲ ὥρη ἐπανάγῃ τὸν ζέφυρον* (44 days after the winter solstice). . . *δεῖ καὶ τῇ διαίτῃ μετὰ τῆς ὥρης ἕπεσθαι ἡμέρας πεντεκαίδεκα, ὅτε ἡ Ἀρκτούρου ἐπιτολὴ, καὶ χελιδὼν ἤδη φέρεται* (cor. *φαίνεται*)[10].

ii. There are many allusions to this natural phenomenon in Euripides[11], which we reserve for the present. iii. *Ζεφύρια δὲ κάλεῖται τὰ ὑπηνέμια* (*ὠὰ* windeggs) *ὑπό τινων, ὅτι ὑπὸ τὴν ἐαρινὴν ὥραν φαίνονται δεχόμεναι τὰ πνεύματα αἱ ὄρνιθες*[12]—(De Scopibus) *Καὶ οὗτοι μέν εἰσιν ἄφωνοι, ἐκεῖνοι δὲ φθέγγονται. περὶ δὲ γενέσεως αὐτῶν ἥτις ἐστὶν, οὐθὲν ὦπται, πλὴν ὅτι τοῖς ζεφυρίοις φαίνονται. τοῦτο δὲ φανερόν*[13]—*Διὰ τί ἀπὸ Πλειάδος μέχρι ζεφύρου οἱ τὰς μακρὰς νόσους κάμνοντες μάλιστα ἀναιροῦνται*[14]—*Ἡ δὲ ὥρα αὕτη ἄμφω ταῦτ' ἔχει· ψυχρά τε γάρ ἐστι, καὶ ἀκμαιότατος ὁ χειμών· τὸ λοιπὸν γὰρ ἔαρ ἐστίν*[15] — *Διὰ τί ὁ ζέφυρος εὐδιεινὸς . . . διὸ καὶ εὔκρατός ἐστι, καὶ πνεῖ ἔαρος μάλιστα*[16]—*Ψυχρὸς δὲ διὰ τὸ μετὰ χειμῶνα ἄρτι τοῦ ἡλίου κρατοῦντος πνεῖν*[17]—*Ἀλλ' ὁ μὲν λάρος (τίκτει) τοῦ θέρους, ἡ δ' αἴθυια ἀρχομένου τοῦ ἦρος, εὐθὺς ἐκ τροπῶν*[18].

iii. Theophrastus, speaking of the *βλάστησις* of trees in their natural or undomesticated state; *Ἁπάντων δὲ κατὰ τὴν ἠρινὴν ὥραν (γίνεται)· . . . τὰ δὲ καὶ πρὸ ζεφύρου καὶ μετὰ πνοὰς εὐθὺς ζεφύρου. καὶ πρὸ ζεφύρου μὲν κράνεια* κ, τ. λ. μετὰ ζέφυρον δὲ δάφνη . . . πρὸ ἰσημερίας δὲ μικρὸν φιλύρα . . . τὰ δὲ ἄλλα περιενισταμένου τοῦ ἔαρος, οἷον ἐρινεὸς κ̀, τ. λ.[19]—Of the time of pruning the vine: Ὥραν δὲ τῆς τομῆς σχεδὸν τὴν αὐτὴν πᾶσιν ἀποδιδόασιν, ὑπ᾽ αὐτὴν τὴν βλάστησιν . . . τὴν γὰρ τομὴν ταύτην (τὴν ἠρινὴν) οὐ καρποῦ χάριν ἀλλὰ βλαστοῦ γίνεσθαι, τὴν δὲ μετοπωρινὴν καρποῦ· διόπερ ἐκείνην ποιητέον εὐθὺς μετὰ Πλειάδος δύσιν· τότε γὰρ εἶναι συνεστηκότα τε μάλιστα, καὶ ἥκιστα τεμνόμενα δακρυρροεῖν καὶ ῥήγνυσθαι· μεθ᾽ ἡλίου δὲ τροπὰς καὶ μετὰ ζεφύρου πνοὰς ἀμφότερα πάσχειν ταῦτα τεμνόμενα, καὶ τό τε φυτὸν πονεῖν, καὶ τὸν βλαστὸν ἐξ ἄκρου φύεσθαι πρὸς τῇ τομῇ[20]—Καθόλου γὰρ, ὡς εἰπεῖν, τὰ ψυχρὰ (πνεύματα) τῶν θερμῶν (βελτίω), ἐὰν μὴ ἀρτιβλαστῆ ἢ καὶ ἐν ἀνθήσει λαμβάνῃ . . . βελτίω δὲ καὶ τὰ ζεφύρια καὶ αἱ τροπαί[21]—Ὁ δὲ ζέφυρος λειότατος τῶν ἀνέμων, καὶ πνεῖ δείλης, καὶ ἐπὶ τὴν γῆν, καὶ ψυχρὸς, τῶν ἐνιαυσίων ἐν δυοῖν μόνον ὥραις, ἐαρινῇ καὶ μετοπώρου· πνεῖ δ᾽ ἐνιαχοῦ καὶ χειμέριος . . . ἐνιαχοῦ δὲ μέτριος καὶ μαλακός . . . καὶ τῶν καρπῶν τοὺς μὲν ἐκτρέφει τοὺς δ᾽ ἀπολλύει καὶ διαφθείρει τελείως . . . ὁ δὲ ζέφυρος ψυχρὸς μὲν διὰ τὸ πνεῖν ἀφ᾽ ἑσπέρας ἀπὸ θαλάττης καὶ πεδίων ἀναπεπταμένων, καὶ ἔτι μετὰ τὸν χειμῶνα τοῦ ἦρος, ἄρτι τοῦ ἡλίου κρατοῦντος, καὶ μετοπώρου πάλιν, ὅτ᾽ οὐκέτι κρατεῖ ὁ ἥλιος . . . χειμέριος δὲ καὶ δυσαὴς, διά τε τὰ πρότερον εἰρημένα, μετὰ τὸν χειμῶνα πνεῖ, ψυχροῦ ἔτι τοῦ ἀέρος ὄντος κ̀, τ. λ.[22]—At a stated time of the year there was a violent wind from the West, which the Greeks called Olympius, or Olympias: Ὀλυμπίου πνοαί. Ὀλύμπιος ἄνεμός ἐστιν ὁ ἀπὸ τοῦ Ὀλύμπου πνέων, ζέφυρος[23]—Καὶ τῶν ἐναντίων ζέφυρων, ἀργεστὴς μὲν ὁ ἀπὸ τῆς θερινῆς δύσεως, ὃν τινες καλοῦσιν Ὀλυμπίαν, οἱ δὲ Ἰάπυγα[24]—Ζέφυρος . . . κατὰ δὲ τὴν Μεγαρικὴν Σκίρρων, ἀπὸ τῶν Σκιρρωνίδων πετρῶν[25] . . . ἐν δὲ Εὐβοίᾳ καὶ Λέσβῳ Ὀλυμπίας, τὸ δὲ ὄνομα ἀπὸ τοῦ Πιερικοῦ Ὀλύμπου[26]. This wind is described by Theophrastus: Ἀργέστην δὲ οἱ μὲν (οὖν) Ὀλυμπίαν οἱ δὲ Σκίρωνα καλοῦσιν[27]—Πνεῖ δὲ τὰ πνεύματα τὰ ἀποκαίοντα περὶ τοὺς κατὰ τὴν Ἑλλάδα τόπους ἀπὸ δυσμῶν· ὥσπερ ὁ Ὀλυμπίας, ὁ ποιῶν ἄλλοθί τε καὶ ἐν Χαλκίδι τὸν καλούμενον καυθμόν. ἐν Θετταλίᾳ γὰρ ἀμφοτέρωθεν πνέοντες ἐμπηγνύουσιν. ἡ δ᾽ ὥρα τῆς πνοῆς μάλιστά πως περὶ τροπὰς, ὑπὸ τὰς τεσσαράκοντα[28]—Οἷον ἐν Χαλκίδι τῆς Εὐβοίας ὁ Ὀλυμπίας, ὅταν πνεύσῃ μικρὸν πρὸ τροπῶν ἢ μετὰ τροπὰς χειμερινὰς, ψυχρός[29]—Ἐν δὲ τῷ Πόντῳ περὶ Παντικάπαιον, αἱ μὲν ἐκπλήξεις (blights) γίνονται διχῶς, ὅτε μὲν ὑπὸ ψύχους ἐὰν χειμέριον ᾖ τὸ ἔτος, ὅτε δὲ ὑπὸ πάγων, ἐὰν πολὺν χρόνον διαμένωσί γε. ἀμφότερα δὲ μάλιστα γίνεται μετὰ τροπὰς, μετὰ τετταράκοντα ἡμέρας[30]: because forty days after the solstice the sap should begin to ascend again, and vegetation be renewed.

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[1] Schol. ad Iliad I. 5. cf. ad B 147 &c.

[2] Anecdota Græca Oxon. ii. 442, 26.

[3] Od. H. 119.

[4] Lydus, De Mens. iv. 93. 109. 5.

[5] Isidore, Origg. xiii. 11. 119. G. cf. Pliny, H. N. xvi. 39: Hic est genitalis spiritus mundi, a fovendo dictus, ut quidam existimavere.

[6] Hippocrates, Opp. iii. 387. 8. *Ἐπιδημίων α'*.

[7] Ibid. 580 2. *Ἐπιδημίων ε'*.

[8] Ibid. 695. 10. *Ἐπιδημίων ζ'*.

[9] Ibid. 697. 4.

[10] Opp. i. 711. 15 sqq. *Διαιτητικὸς τρίτος*.

[11] Cf. Phœnissæ, 202–214: 283–285: Schol. ad 288. 211, 212. Iphigenia in Tauris, 419, 420.

[12] Aristotle, Histor. Anim. vi. 2. 154. 15.

[13] Ibid. ix. 28. 273. 4.

[14] 861. 20 a. Problem. Medica, 17.

[15] Ibid. 23.

[16] Ibid. 943. 21 b. xxvi. 31.

[17] Ibid. 946. 22 a. xxvi. 52.

[18] Histor. Anim. v. 9. Pag. 120. 11.

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[19] Histor. Pl. iii. 4, 1, 2. cf. v. 1, 2.

[20] De Causis Pl. iii. 13, 1.

[21] De Causis, ii. 3, 1.

[22] V. De Ventis, § 38—42. Pag. 772, 773.

[23] Hesychius.

[24] Aristot. i. 394. 25. De Mundo ad Alexandrum, 4.

[25] Cf. vol. i. page 110. note.

[26] Aristot. ii. 973. 12 b. Ἀνέμων θέσεις. cf. Meteor. ii. 6. Pag. 56, 26.

[27] De Ventis, ad fin.

[28] De Causis Pl. v. 12, 4.

[29] Histor. Plant. iv. 14, 11.

[30] Ibid. iv. 14, 13. cf. Pliny, H. N. xvii. 37. § 8. p. 714: Vel flatus alicujus regionis proprius, ut est in Apulia Atabulus (cf. Horace, Satirarum i. v. 77.) in Eubœa Olympias. hic enim si flavit circa brumam frigore exurit arefaciens, ut nullis postea solibus recreari possint.

iv. *Τί κάλλιόν ἐστ' (ἢ) βαδίζειν*
*ὅπου λειμῶνες κομῶσιν,*
*ὅπου λεπτὴν ἡδυτάτην*
*ἀναπνεῖ Ζέφυρος αὔρην;*[31]

*Μυρίον ἀνδράσι θαῦμα νοεῖν πάρα, πῶς ἀνόδευτον*
*χεῦμα δι' εἰαρινῶν ἐδράμομεν ζεφύρων*[32].

*Ἵη, ἵη, Καρνεῖε πολύλλιτε, σεῖο δὲ βωμοὶ*
*ἄνθεα μὲν φορέουσιν ἐν εἴαρι, τόσσά περ ὧραι*
*ποικίλ' ἀγινεῦσι Ζεφύρου πνείοντος ἐέρσην,*
*χείματι δὲ κρόκον ἡδύν*[33]. . . . .

*Καί τε σπλὴν ὀλόοιο κακὸν βάρος ἤρκεσε φρύνης,*
*λιμναίης φρύνης πολυηχέος, ἥ τ' ἐπὶ φύκει*
*πρῶτον ἀπαγγέλλουσα βοᾷ θυμάρμενον εἶαρ*[34].

*Τῶν δ' ὥς που ἀνέμων ἰαχὴ πέλε λαβρὸν ἀέντων,*
*εἴαρος ἀρχομένου, ὅτε δένδρεα μακρὰ καὶ ὕλη*
*φύλλα φύει*[35].

*Ἤδη γὰρ Ζεφύροιο προάγγελος ἔγγυος ὥρη*
*σχιζομένων καλύκων δροσεροὺς ἐμέθυσσεν ἀήτας·*
*καὶ λιγυρὴ μερόπεσσι συνέστιος εἴαρι κῆρυξ*
*ὄρθριον ὕπνον ἄμερσε, λάλος τρύζουσα χελιδὼν*
*ἀρτιφανής· καὶ γυμνὸν ἀπ' εὐόδμοιο καλύπτρης*
*εἰαριναῖς ἐγέλασσε λελουμένον ἄνθος ἐέρσαις*[36].

*Καὶ ἄλλως, τὸ ἔαρ, περὶ Ζεφύρου πνοάς*[37].

v. Jam ver egelidos refert tepores,
Jam cœli furor æquinoctialis
Jucundis Zephyri silescit auris.
Linquantur Phrygii Catulle campi,
Nicææque ager uber æstuosæ.
Ad claras Asiæ volemus urbes[38].

Quales Eurotæ progignunt flumina myrtos,
Aurave distinctos educit verna colores[39].

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[31] Anacreon, Reliquiæ, F (iii.) Εἰς τὸ ἔαρ. Pag. 334.

[32] Strabo, xiv. 6. 244 a. Epigram of Hedylus, on some stags which had swum across the sea from Corycus, in Cilicia, to Κουριὰς, in Cyprus.

[33] Callimachus, Hymn. Apollinis, 80.

[34] Nicander, Alexipharmaca, 575.

[35] Q. Smyrnæus, x. 66.

[36] Nonnus, iii. 10: cf. ii. 132: xi. 495–500: xxxviii. 268: xlvii. 31.

[37] Pollux, Onomasticon, i. vii. 4. § 61.

[38] Catullus, xlvi. 1.

[39] lxiv. 89. De Nuptiis Pelei et Thetidis.

Nam quotcumque ferunt campi, quos Thessala magnis
Montibus ora creat, quos propter fluminis undas
Aura parit flores tepidi fecunda Favonî,
Hos indistinctis plexos tulit ipse corollis,
Queis permulsa domus jucundo risit odore[40].

Te Dea te fugiunt ventei, te nubila cœli
Adventumque tuum: tibi suaveis dædala tellus
Submittit flores; tibi rident æquora ponti,
Placatumque nitet diffuso lumine cœlum.
Nam simul ac species patefacta est verna diei,
Et reserata viget genitabilis aura Favonî—&c.[41]

It Ver et Venus, et Veris prænuncius ante
Pennatus graditur Zephyrus, vestigia propter
Flora quibus mater præspargens ante viaï
Cuncta coloribus egregiis et odoribus obplet[42].

Prima caloris enim pars et postrema rigoris
Tempus id est vernum[43].

Nam fretus ipse anni permiscet frigus et æstum[44].

Vere novo gelidus canis quum montibus humor
Liquitur, et Zephyro putris se gleba resolvit,
Depresso incipiat jam tum mihi taurus aratro
Ingemere, et sulco attritus splendescere vomer[45].

Ergo *vere novo*, observes Servius, et anni initio accipiamus, et prima parte veris[46].

Optima vinetis satio quum vere rubenti
Candida venit avis longis invisa colubris[47]:
Prima vel autumni sub frigora, quum rapidus sol
Nondum hiemem contingit equis, jam præterit æstas[48].

Parturit almus ager, Zephyrique tepentibus auris
Laxant arva sinus: superat tener omnibus humor:
Inque novos soles audent se germina tuto
Credere[49]—

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[40] Ibid. 281.

[41] Lucretius, i. 6.

[42] Ibid. v. 736: cf. iv. 176: vi. 715. 750.

[43] vi. 367.

[44] vi. 363.

[45] Georg. i. 43.

[46] Cf. ad v. 64.

[47] Cf. Isidore, Origg. xii. 7. 109 G. Ciconiæ:...hæ veris nunciæ, societatis comites, serpentium hostes, maria transvolant, in Asiam collecto agmine pergunt.

[48] Georg. ii. 319.

[49] ii. 330.

At vero, Zephyris cum læta vocantibus æstas,
In saltus utrumque gregem atque in pascua mittes[50].

*Servius:* Dicit autem ver, quo flare Zephyrus incipit—

Primus vere rosam atque autumno carpere poma:
Et quum tristis hiems etiamnum frigore saxa
Rumperet, et glacie cursus frenaret aquarum,
Ille comam mollis jam tum tondebat acanthi,
Æstatem increpitans seram Zephyrosque morantis[51].

Hoc geritur Zephyris primum inpellentibus undas,
Ante novis rubeant quam prata coloribus, ante
Garrula quam tignis nidum suspendat hirundo[52].

Solvitur acris hiems grata vice veris et Favonî,
  Trahuntque siccas machinæ carinas:
Ac neque jam stabulis gaudet pecus, aut arator igni,
  Nec prata canis albicant pruinis[53].

Nunc decet aut viridi nitidum caput inpedire myrto,
  Aut flore terræ quem ferunt solutæ:
Nunc et in umbrosis Fauno decet inmolare lucis,
  Seu poscat agna sive malit hœdo[54].

Diffugere nives: redeunt jam gramina campis
    Arboribusque comæ[55].
.. .. .. ..
Frigora mitescunt Zephyris: ver proterit æstas
    Interitura simul
Pomifer autumnus fruges effuderit: et mox
    Bruma recurrit iners[56].

Quod si bruma nives Albanis inlinet agris,
Ad mare descendet vates tuus, et sibi parcet,
Contractusque leget: te dulcis amice reviset
Cum Zephyris, si concedes, et hirundine prima[57].

The Scholiast on Horace observes: Favonium ventum, qui Zephyrus Græce nominatur, veris tempore flare Virgilius testis est, qui sic ait in Georgicis, *Vere* novo &c.[58]—Favonii namque primo vere leniter flare incipiunt, terramque solvere[59]—Eo enim ipso tempore et hiems clauditur et veris amœnitas aperitur quo Zephyri flare incipiunt[60].

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[50] Georg. iii. 322.
[51] iv. 134.
[52] iv. 305.
[53] Horace, Od. i. iv. 1.
[54] Ibid. ver. 9. cf. iii. vii. 1–5.
[55] iv. vii. 1.
[56] Ibid. ver. 9.
[57] Epistolæ, i. vii. 10.
[58] Ad Od. i. iv. 1.

Ver erat æternum, placidique tepentibus auris
Mulcebant Zephyri natos sine semine flores[61].

Utve sub adventum spirantis lene Favonî
Sole remollescit, quæ frigore constitit unda[62].

Jam puer Idæus media tenus eminet alvo,
  Et liquidas misto nectare fundit aquas.
En etiam si quis Borean horrere solebat
  Gaudeat; a Zephyris mollior aura venit[63].

Quintus ab æquoreis nitidum jubar extulit undis
  Lucifer, et primi tempora veris eunt.
Ne fallare tamen! restant tibi frigora, restant!
  Magnaque discedens signa relinquit hiems[64].

Ecce velut torrens undis pluvialibus auctus,
  Aut nive quæ Zephyro victa tepente fluit—
Per sata perque vias fertur[65].

Liquitur, ut quondam Zephyris et solibus ictæ
  Solvuntur teneræ vere tepente nives[66].

Frigora jam Zephyri minuunt; annoque peracto
  Longior antiquis visa Mæotis hyems:
Impositamque sibi qui non bene pertulit Hellen
  Tempora nocturnis æqua diurna facit[67].
Jam violam puerique legunt hilaresque puellæ,
  Rustica quam nullo terra serente gerit:
Prataque pubescunt variorum flore colorum,
  Indocilique loquax gutture vernat avis.
Utque malæ crimen matris deponat hirundo
  Sub trabibus cunas parvaque tecta facit[68].

Hac hac alii qua nemus alta
Texitur alno: qua prata jacent,
Quæ rorifera mulcens aura
Zephyrus vernas evocat herbas[69].

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[59] Ad iii. vii. 1.

[60] Ad iv. xii. 1.

[61] Ovid. Metam. i. 107.

[62] Ibid. ix. 660.

[63] Fasti, ii. 145. of the Nones of Feb. cf. 121. 149.

[64] Ibid. 149. of Feb. 9. cf. i. 459. Jan. 10.

[65] ii. 219. cf. iii. 235. of March 1. cf. 237–242.

[66] Consolatio ad Liviam, 101.

[67] Cf. however, line 27, 28.

[68] Tristia, iii. 12. 1.

[69] Seneca Tragœdus, Hippolytus, 9.

Usque novos divæ melioris ad ignes
Urbe sedent læti Minyæ, viduisque vacantes
Indulgent thalamis, nimbosque educere luxu,
Nec jam velle vias: Zephyrosque audire vocantes
Dissimulant[70].

Tertius horrentem Zephyris laxaverat annum
Phœbus, et angustum cogebat limite verno
Longius ire diem[71].

Jam trux ad Arctos Parrhasias hyems
Concessit altis obruta solibus:
Jam pontus ac tellus renident,
Jam Zephyris Aquilo refractus.
Nunc cuncta, vernans frondibus annuis,
Crinitur arbos: nunc volucrum novi
Questus, inexpertumque carmen
Quod tacita statuere bruma.
Non parca tellus pervigil et focus
Culmenque multo lumine sordidum
Solantur, exemptusque testa
Qua modo ferbuerat Lyæus[72].
Non &c.

Hic adeo cum ver placidum, flatusque tepescit,
Concubitus servans tacitos grex prostat equarum[73].

Nullus erat pater: ad Zephyri nova flamina campis
Vettonum eductum genitumque effuderat Harpe[74].

Jam terra glaciale caput fecundaque nimbis
Tempora, et austrifero nebulosam vertice frontem
Inmitis condebat hiems, blandisque salubre
Ver Zephyris tepido mulcebat rura sereno[75].

O bene signatum fraterno nomine tempus!
O consanguineis felix auctoribus anne!
Incipe quadrifidum Phœbi torquere laborem.
Prima tibi procedat hiems, non frigore torpens,
Non canas vestita nives, non aspera ventis,
Sed tepido calefacta noto: ver inde serenum
Protinus, et liquidi clementior aura Favonî
Pratis te croceis pingat[76].

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[70] Valerius Flacc. Argon. ii. 369. cf. ii. 357 sqq. 405, 406: iii. 364. From the Vergiliarum Occasus to the Flatus Favonii.

[71] Statius, Thebais, iv. 1.

[72] Sylvæ, iv. v. 5.

[73] Silius Italicus, iii. 379.

[74] Ibid. xvi. 365. cf. xvi. 428: also Virgil, Georg. iii. 272 sqq.

[75] xii. 1. of the spring of B.C. 215, after the winter passed at Capua.

[76] Claudian, i. In Probi et Olybrii Cons. A. D. 395. v. 266.

Mitior alternum Zephyri jam bruma teporem
Senserat, et primi laxabant germina flores[77].

Viderat herboso sacrum de vertice vulgus
Henna parens florum, curvaque in valle sedentem
Compellat Zephyrum : Pater o gratissime veris
Qui mea lascivo regnas per prata meatu
Semper, et adsiduis inroras flatibus annum[78].

Ἡμεῖς δέ σοι ποδάγρα
πρώταις ἔαρος ἐν ὥραις
μύσται τελοῦμεν οἴκτους,
ὅτε πᾶς χλοητόκοισι
ποίαις τέθηλε λειμὼν,
Ζεφύρου δὲ δένδρεα πνοαῖς
ἀπαλοῖς κομᾷ πετήλοις·
ἁ δὲ δύσγαμος κατ᾽ οἴκους
μερόπων θροεῖ χελιδὼν,
καὶ νύκτερος καθ᾽ ὕλαν
τὸν Ἴτυν στένει δακρύοις
Ἀτθὶς γόοις ἀηδών[79].

vi. Cum autem ver esse cœperat, cujus initium iste non a Favonio neque ab alio astro notabat; sed cum rosam viderat tunc incipere ver arbitrabatur—dabat se labori atque itineribus[80]—Te ad cenas itare desisse moleste fero ... Spurinna quidem, cum ei rem demonstrassem et vitam tuam superiorem exposuissem, magnum periculum summæ reipublicæ demonstrabat, nisi ad superiorem consuetudinem tum cum Favonius flaret revertisses : hoc tempore ferri posse, si forte tu frigus ferre non posses[81].

vii. Prata primo vere stercorato .. quæ irrigua non erunt ubi Favonius flare cœperit[82]— Materies cædenda est a primo autumno ad id tempus quod erit antequam flare incipiat Favonius. vere enim omnes arbores fiunt prægnantes, et omnes suæ proprietatis virtutem efferunt in frondes anniversariosque fructus ... eadem ratione autumnali tempore, maturitate fructuum flaccescente fronde, ex terra recipientes radices arborum in se succum, recuperantur et restituuntur in antiquam soliditatem. at vero aëris hyberni vis comprimit et consolidat eas per id (ut supra scriptum est) tempus. ergo si ea ratione et eo tempore quod supra scriptum est cæditur materies, erit tempestiva[83]—Ab Aquario cum ingressus est in Pisces (sol) Favonio flante[84]—which dates the Flatus Favonii between Jan. 22 and Feb. 22, in the celestial Hydron—Cæduntur autem trabes utiliter post

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[77] xx. In Eutropium, ii. 95.

[78] xxxv. De Raptu Proserpinæ, ii. 71. cf. 88–93 : 288, 289.

[79] Lucian, iii. 647. Tragopodagra, 42. cf. 63–65 : 117, 118 : 135, 136.

[80] Cicero, Oratio x. In Verr. ii. v. 10, 27.

[81] Ad Familiares, ix. 24. Pæto.

[82] Cato, De Re Rustica, 1.

[83] Vitruvius, ii. 9. 70.

[84] ix. 2. 271.

solstitium æstivum, id est per menses Julium, Augustum, et per autumnale æquinoctium, usque ad Kalendas Januarias. his namque mensibus arescente humore sicciora et ideo fortiora sunt ligna[85].

viii. Novi autem veris principium non sic observare rusticus debet quemadmodum astrologus, ut exspectet certum diem illum qui veris initium facere dicitur; sed aliquid etiam sumat de parte hiemis . . . possit igitur ab idibus Januariis (ut principem mensem Romani anni observet) auspicari culturarum officia[86]—Mox ubi bruma confecta est, intermissis quadraginta diebus, circa hirundinis adventum, cum jam Favonius exoritur, post idus Februarias, &c[87]—Itaque ab idibus Januariis quod habetur tempus inter brumam et adventum Favonii[88]—In his calendar he has a date of the Flatus Favonii as early as vi. Id. Jan. January 8 Roman = January 9 of the time[89]: the middle of winter according to him was Jan. 27 Roman: he has another date of the Flatus, Feb. 3 Roman, and another (which was the proper one) Feb. 7 Roman = Feb. 8 Julian[89]: yet he dates it also on the Ides, Feb. 13[90]: and the *forty* days from that time to the vernal equinox[91]—

Post ubi Riphææ torpentia frigora brumæ
Candidus aprica Zephyrus regelaverit aura,
Sidereoque polo cedet Lyra*, mersa profundo,
Veris et adventum nidis cantarit hirundo
Rudere tum pingui, &c[92].

ix. *Οἱ τοίνυν πλεῖστοι, καὶ πρό γε πάντων Βάρων ὁ Ῥωμαῖος, ἀρχὴν ἔαρος εἶπεν ὅταν ὡς ἐπὶ τὸ πλεῖστον Ζέφυρος ἄρχηται πνεῖν, ὅπερ ἐστὶ τῇ πρὸ ἑπτὰ εἰδῶν Φευρουαρίων*[93] *κ᾽, τ. λ.* Feb. 7 Roman. From Varro's own work[94], it appears, he made just 45 days from the winter solstice to the Flatus Favonii, and 44 (so his text is to be corrected[95]) from thence to the vernal equinox—Ab Favonio usque ad Arcturi exortum, &c[96]—*Τινὲς συμβουλεύουσιν ἔαρος ἀρχομένου, ζεφύρου μέντοι πνέοντος, τὰ κλήματα λαμβάνειν. . . τινὲς δὲ οὐκ εὐθὺς ἐν ἀρχῇ τοῦ ἔαρος*[97]—*Ἀρίστη δὲ ὥρα εἰς τὴν τούτων ὀχείαν (ὑῶν) ἀπὸ ζεφύρου πνοῆς ἕως ἐαρινῆς ἰσημερίας*[98]—Suillo pecori a Favonio ad æquinoctium vernum[99].

x. Ver ergo aperit navigantibus maria; cujus in principio Favonii hibernum molliunt cœlum, sole Aquarii xxv obtinente partem. is dies sextus est ante Februarias idus[100]—Favonium quidam a. d. viii. Kalendas Martii

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* Feb. 2 Roman. cf. the Fasti of Ovid, ii. 73. Jan. 30 Roman, according to Columella. See our Orig. Kal. Ital. iv. 156.

[85] Vegetius, v. 6.

[86] Columella, De Re Rustica, xi. ii. § 2.

[87] Ibid. iii. § 5.

[88] xi. ii. 6.

[89] See our Origines Kal. Italicæ, iv. 155 sqq.

[90] viii. xi. § 7.

[91] De Re Rust. iii. xiv. § 1.

[92] De Cultu Hortorum, 77. Lib. x.

[93] Geoponica, i. cap. i. Florentini. cf. x. 75. ad fin. xiv. 7. 380, 381.

[94] De Re Rustica, i. 28.

[95] Cf. our Origines Kal. Italicæ, iv. 252 sqq.

[96] De Re Rustica, i. 35.

[97] Geoponica, v. 6. Cassiani.

[98] Ibid. xix. 6. p. 469. Florentini.

[99] Varro, De Re Rust. ii. 1. § 18. cf. iv. § 7. Columella, Mense Februario, vii. 9. § 3, 4.

[100] Pliny, H. N. ii. 47. cf. xviii. 65, 2. 208: xv. 4.

It appears too that among the other characters of this natural phenomenon, one was its supposed distance both from the winter solstice and from the vernal equinox, viz. about half way between the two; forty-five days after the one and forty-five days before the other. On this principle, the mean vernal equinox, both B. C. 592 and B. C. 567, falling on March 29, and the mean winter solstice on December 28, the date of the Ζεφύρου πνοὴ at either of those times would have required to be assumed, Feb. 12: and consequently if the recurrence of this wind, at its stated time, was supposed to try the soundness of the new wine more than any thing else, neither the Πιθοιγία in the Attic calendar nor the Ἀγαθὸς Δαίμων in the Bœotian, (that is, the ceremony of first broaching the wine of the last year's production,) would be fixed to an earlier date than Feb. 12.

Accordingly, if we may assume that in the Attic calendar this ceremony was appointed for the eleventh of the *second* month, and in the Bœotian for the sixth of the corresponding one, then, each of them being reduced to its proper epoch, (Jan. 8 in the former, Jan. 13 in the latter,) it is observable that both the eleventh of the second month in the Attic, and the sixth of the second in the Bœotian, would fall on Feb. 16, four days at least later than the date of the Flatus Favonii, assumed to have been Feb. 12; which even then might be supposed to have blown long enough to put the firmness and texture of the new wine to the test. Nor, at any period of the cycle of either calendar, could the date of this ceremony have fallen out much differently from the stated time of the setting in of these winds, after the winter solstice, and before

(Feb. 22 Roman) Chelidonian vocant ab hirundinis visu [101]—Flare incipiente vento Favonio circiter fere sextum idus Februarii .... ver inchoans [102]—Inter brumam et æquinoctium die xlv flatus Favonii, vernum tempus [103].

xi. Lastly, with respect to the date of this phenomenon in the Greek Parapegmata; it appears from Geminus, and from Ptolemy, De Apparentiis, that Eudoxus dated it as early as Feb. 5; the Αἰγύπτιοι Feb 4: Dositheus, Feb. 6: Democritus, Feb. 7, 43 days after the winter solstice (Dec. 25 or 26): Euctemon and Callippus, Feb. 8: Hipparchus, Feb. 9; Metrodorus, Feb. 10.

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[101] ii. 47.

[102] xvi. 39.

[103] xviii. 59. cf. our Origines Kal. Italicæ, iv. 180 note.

the vernal equinox. The extreme limits of the second Bœotian month were Jan. 20 and Feb. 15; and as referrible to the former, the earliest date of the Ἀγαθὸς Δαίμων would be Jan. 25, as referrible to the latter, the latest would be Feb. 20.

On this point however it is necessary to take into account the relation of the Bœotian months to the Attic, not simply as it was originally, but as it was in the time of Plutarch also. The first month in the Bœotian calendar was called Bucatius; and there can be no doubt that it corresponded at first to Gamelion. The place of Bucatius in the natural year too at first, as we shall see hereafter, relatively to the winter solstice was such, that it always began when the sun was passing through Capricorn; *after* it had entered that sign and *before* it had quitted it: and its extreme limits in the Julian calendar at first being Dec. 22 and Jan. 17, it is manifest that this must have been a just and exact description of its relation to the tropical year, originally—as never earlier than the ingress of the sun into Capricorn, nor ever later than its ingress into Aquarius.

But by the time of Plutarch, so long after the date of the Metonic correction at Athens, the mere administration of that calendar according to its own rules, without any correction meanwhile, had been gradually advancing the actual place of each of the Attic months in the natural or Julian year to such a degree that, as compared with the celestial calendar, or with any other calendar which had not been affected in the same manner, but continued to preserve its original relations to the natural or the Julian year, the last Attic month in the time of Plutarch was now corresponding to the same month, to which the first had corresponded originally. Posideon for instance in the Attic calendar was now corresponding to Bucatius in the Bœotian, if Gamelion did so at first: and Gamelion was now corresponding to the second month in the Bœotian calendar, if it corresponded originally to the first.

This second month in the Bœotian calendar was called Hermæus; and there can be no question that while Bucatius was still answering to Gamelion, Hermæus must have answered to Anthesterion. The third month in the Bœotian calendar was Prostaterius, and the third in the Attic was Elaphebolion; and there can be no question that while Bucatius in the same calendar was answering to Gamelion, and Hermæus to Anthesterion, Prostaterius must have been answering to Elaphebolion, and therefore the sixth of Prostaterius, the date of the Ἀγαθὸς Δαίμων, must have answered originally to the eleventh of Elaphebolion. And this fact being once ascertained, we shall perceive a much more determinate relation between the time and season of this ceremony of opening and tasting the new wine, and the final end of the ceremony, (the discovery how it had stood the critical period of the Ζεφύρου πνοὴ,) if the actual date of the ceremony was the sixth of the third month, than if it was the sixth of the second. The west winds were not considered liable to begin to blow before such and such a time *after* the winter solstice; but having once set in at that time they were considered liable to blow as late as the vernal equinox itself. The extreme limits of the third Bœotian month were February 19 and March 17; the earliest date of the Ἀγαθὸς Δαίμων consequently, as attached to the sixth of this month, could not have been earlier than Feb. 24, twelve days at least later than the setting in of the Flatus Favonii; nor the latest later than March 22, seven days earlier than the vernal equinox *.

Upon the whole, though difficulties may still be raised on this question in particular, of the original correspondence of the Bœotian date of this ceremony to the Attic; yet the fact will still hold good that the Bœotian date of the ceremony was attached to the sixth of its proper month, and the Attic to the eleventh: and the analogy of these two dates will be a presumptive argument of the analogy of epochs from the first. In any case, the conclusion established will still hold good; viz. that B. C. 567 was the epoch of the Bœotian correction, as B. C. 592 was of the Attic: that the former was derived from the Primitive equable calendar, Æra Cyc. 3140, just in the same manner as the latter Æra Cyc. 3415: that the former was an Octaëteric correction of the Primitive solar year as much as the latter; and the former has the same right to be considered and proposed as the proper exemplar of the second Type of the Greek octaëteris in general, as the latter of the first.

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* On this subject of the Πιθοιγία in the Attic calendar, and the Ἀγαθὸς Δαίμων in the Bœotian, the reader may compare also what we had occasion to say in our Origines Kalendariæ Italicæ, i. 292 sqq., in illustration of the *Vinalia* of the Roman calendar—an institution analogous in that to these in the other two. Cf. also the Geoponica, vii. 7, 10.

### SECTION VI.—*On the names and order of the Bœotian months, as recoverable from the testimony of Plutarch.*

i. Βουκάτιος and Ἑρμαῖος — Πλούταρχος οὐδένα φησὶ μῆνα Ληναιῶνα καλεῖσθαι παρὰ Βοιωτοῖς. ὑποπτεύει δὲ ἢ τὸν Βούκαιρον αὐτὸν λέγειν, ὅς ἐστιν ἡλίου τὸν Αἰγόκερων διϊόντος (καὶ τοῦ βούδορα τῷ βουκέρῳ (βουκαίρῳ) συνᾴδοντος, διὰ τὸ πλείστας ἐν αὐτῷ διαφθείρεσθαι βόας)· ἢ τὸν Ἑρμαῖον, ὅς ἐστι μετὰ τὸν Βούδορα, καὶ εἰς ταὐτὸν ἐρχόμενος τῷ Γαμηλιῶνι, καθ᾽ ὃν καὶ τὰ Ληναῖα παρ᾽ Ἀθηναίοις. Ἴωνες δὲ τοῦτον οὐδ᾽ ἄλλως ἀλλὰ Ληναιῶνα καλοῦσιν[o] —Ληναιών[p]· μήν. οὐδένα τῶν μηνῶν Βοιωτοὶ οὕτω καλοῦσιν. εἰκάζει δὲ ὁ Πλούταρχος Βουκάτιον· καὶ γὰρ ψυχρός ἐστιν. ἔνιοι δὲ τὸν Ἑρμαῖον, ὃς κατὰ (corr. μετὰ) τὸν Βουκάτιόν ἐστιν· καὶ γὰρ Ἀθηναῖοι τὴν τῶν Ληναίων ἑορτὴν ἐν αὐτῷ ἄγουσιν—Καίτοι χειμῶνος μὲν ἦσαν αἱ περὶ τροπὰς ἀκμαί· μηνὸς δὲ τοῦ τελευταίου φθίνοντος ὀλίγαι περιῆσαν ἡμέραι, καὶ τὴν ἀρχὴν ἔδει παραλαμβάνειν ἑτέρους εὐθὺς ἱσταμένου τοῦ πρώτου μηνός[q]—Θανάτου γὰρ ἀμφότεροι δίκας ἔφυγον ἐπανελθόντες, ὅτι τοῦ νόμου κελεύοντος ἐν τῷ πρώτῳ μηνὶ παραδοῦναι τὴν Βοιωταρχίαν ἑτέροις, ὃν Βουκάτιον ὀνομάζουσι[r] κ̀, τ. λ.

These testimonies ascertain the name of the first month, Bucatius, and its seat in the natural year, as next to the winter solstice: the truth of which has been already illustrated[s]. It follows that it must have answered originally to Gamelion; though in the time of Plutarch it was corresponding to Posideon. They ascertain also the name of the second month, Hermæus; and its relation originally to Anthesterion (in which the Athenians celebrated the Lenæa), as well as its relation in the time of Plutarch to Gamelion.

ii. Προστατήριος. The testimony of Plutarch to the name of this month, and the inference from it that it must have been originally the third in the calendar, and must have corresponded to Elaphebolion, have been anticipated in the last section.

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[o] Scholia in Hesiod. Opp. et Dies, 502.

[p] Hesychius. Cf. vol. i. 254.

[q] Plutarch, Pelopidas, xxiv

[r] Ibid. xxv.

[s] Page 286.

iii. Ἱπποδρόμιος—Τοῦτο μὲν, Βοιωτοῖς Ἱπποδρομίου μηνὸς, ὡς δ' Ἀθηναῖοι καλοῦσιν Ἑκατομβαιῶνος, ἱσταμένου πέμπτῃ δύο λαβεῖν συνέβη νίκας ἐπιφανεστάτας, αἷς τοὺς Ἕλληνας ἠλευθέρωσαν, τήν τε περὶ Λεύκτρα καὶ τὴν ἐπὶ Κερησσῷ, ταύτης πρότερον ἔτεσι πλείοσιν ἢ ἑκατὸν, ὅτε Λατταμύαν καὶ Θεσσαλοὺς ἐνίκησαν[t].

We collect from this passage not only the name of another month, Hippodromius, but its correspondency also to Hecatombæon; and therefore its place in the calendar originally, as the seventh: and consequently, like Hecatombæon also, in the natural year, next after the summer solstice. Yet in the time of Plutarch, if Gamelion in the Attic calendar was answering to the second month in the Bœotian (Hermæus), Skirrhophorion in the former must have been answering to the seventh (Hippodromius) in the latter. At the time however of each of the events to which he is here referring, the battle of Leuctra and the battle of Keressus (one hundred years and upwards before Leuctra), Hippodromius might have truly corresponded to Hecatombæon.

iv. Πάνεμος—Ἀνάπαλιν δ' ὁ Μεταγειτνιὼν, ὃν Βοιωτοὶ Πάνεμον καλοῦσιν, Ἕλλησιν οὐκ εὐμενὴς γέγονε[t]. If Panemus answered to Metageitnion, it must have been originally the eighth month: and both these facts have been placed out of question by the date of the battle of Platæa. The proper epoch of this month consequently relatively to the Attic calendar was the sixth of Metageitnion; and though in the time of Plutarch it might be corresponding generally to Hecatombæon, it was still in part answering to Metageitnion: and in the times, and on the occasions, to which he refers in the above passage (those of Chæronea and Cranon and other events), there was still little difference between this month and Metageitnion.

v. Δαμάτριος—Ἔστι δὲ ὁ μὴν οὗτος περὶ Πλειάδα, σπόριμος, ὃν Ἀθὺρ Αἰγύπτιοι, Πυανεψιῶνα δ' Ἀθηναῖοι, Βοιωτοὶ δὲ Δαμάτριον καλοῦσιν[v]. The first of these characters ascertains the site of this month in the natural year, the Πλειάδων δύσις, seed-time for the climate of Greece: and this, both at the date of the Bœotian correction, and in the time of Plutarch, may be assumed as that of the Julian November. The Egyptian Athyr also (the Alexandrine month so called), to which he compares it here, is to be understood of November. It follows that this month in the Bœotian calendar must have answered originally to Mæmacterion in the Attic, and each must have been the eleventh in its proper calendar. And though in Plutarch's time it was answering to Pyanepsion, that was because of the reason explained supra[x]; that Pyanepsion had now got into the same place in the natural year as had been originally occupied by Mæmacterion. The name of the month confirms this conclusion, respecting its relation to the natural year; if at least it was so called after *Δαμάτηρ* or *Δημήτηρ*—the first author of the gift of bread-corn, according to the belief of the Greeks, and the first who taught mankind both to sow and to reap.

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[t] Plutarch, Camillus, xix.

[v] De Iside et Osiride, lxix.

vi. *Ἀλαλκομένιος—Καὶ τοῦτο μέχρι νῦν δρῶσι τοῦτον τὸν τρόπον. τοῦ Μαιμακτηριῶνος μηνὸς, ὅς ἐστι παρὰ Βοιωτοῖς Ἀλαλκομένιος, τῇ ἕκτῃ ἐπὶ δέκα πέμπουσι πομπὴν*[y] *κ̀, τ. λ.* Plutarch is speaking of the honours still paid to the memory of those who fell in the battle of Platæa. The Attic date of this ceremony, Mæmacterion 16, there is no reason to suppose might not still have been the same as ever; but it by no means follows, because the sixteenth of Mæmacterion in Plutarch's time was liable to fall in the Bœotian Alalcomenius, that it had always been so. All that we can infer from this statement is that in his time Alalcomenius was more or less the same with Mæmacterion: the truth of which will appear at once, when it is known that Mæmacterion in the Metonic calendar in his time was capable of falling on Nov. 23 or 24, and Alalcomenius in the Bœotian on Nov. 24 or 25; so that in some years of the cycle of each they were liable to coincide throughout.

It will follow however from this state of the case, with respect to Alalcomenius, and from that which has just been considered with respect to Damatrius, that Alalcomenius must have been the month next to Damatrius; and that as Damatrius was the eleventh so Alalcomenius must have been the twelfth: and as Damatrius answered originally to Mæmacterion, so must Alalcomenius have done to Posideon. Alalcomenius consequently having been originally the twelfth month, we may presume that, in the intercalary years of the cycle, the thirteenth or intercalary, month was a second Alalcomenius; just as in the Attic calendar it was a second Posideon. And if the numerical order of this month, even in consequence of any subsequent correction among the Bœotians, was never changed, Alalcomenius would continue to be the last month even in the Metonic calendar of the Bœotians, and the second Alalcomenius to be the proper intercalary month in that form of the calendar also. On this principle the assertion respecting the correspondence of this month in the Bœotian calendar to Mæmacterion in the Attic would be only the more capable of holding good; for there would be few years of the proper cycle of each in which either the first or the second Alalcomenius and the Attic Mæmacterion would not more or less coincide.

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[x] Page 126, 127.

[y] Plutarch, Aristides, xxi.

The above are all the names of the months in the Bœotian calendar which occur in Plutarch; and they still leave five to complete the list. We are able however, to a certain extent, to supply this omission, by means of the testimony of inscriptions—to which, for the sake of completing this part of our subject, we will proceed.

### SECTION VII.—*On the names and order of the Bœotian months, as recoverable from the testimony of Inscriptions.*

A number of inscriptions, belonging to Chæronea in Bœotia, are extant[z]; all relating to the same subject, the sale of male or female slaves for the service of Sarapis from which coincidence the learned editor justly infers that, though none of these could have been earlier than the first introduction of the worship of Sarapis into Egypt, they may possibly go back to a date, which he himself assumes as Ol. cxxx, B. C. 260; within twenty years of that introduction*. The names of five months are still read on these inscriptions, and there is one more which is imperfect. It will suffice to quote the beginning of each; including the name of the archon, the name of the month, and the day of the month, under whom and in which and on which each of these sales took place: this day, it is observable, in every instance being either the 15th or the 30th; from which we may infer that these two were regular market days for sales of this kind at Chæronea, as the first of the month was at Athens[a].

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* Of the circumstances and date of the introduction, see our Fasti Catholici, iv. 404–438.

[z] Corp. Inscr. i. 781.

i. *a.* Ἄρχοντος (Ζ)ωΐλου . . μ(η)νὸς . . τω . . . ιος (τριακ)άδι[b].

ii. *b.* Ἄρχοντος Διοκλέους . . . μηνὸς Ὁμολωΐου πεντεκαιδεκάτῃ.

iii. *c.* Ἄρχοντος Εὐάνδρου μηνὸς Ἀλαλκομενήου τριακάδι.

iv. *d.* Ἄρχοντος Πάτρωνος μηνὸς Θηλο(υ)θίου πεντεκαιδεκάτῃ.

v. *e.* Μηνὸς Ἀλαλκομενείου πεντεκαιδεκάτῃ.

vi. *f.* Ἄρχοντος Ἀντίγωνος ? μηνὸς Προστατηρίου πεντεκαιδεκάτῃ.

vii. *g.* Ἄρχοντος Φιλοξένου μηνὸς Ἀλαλκομενήου πεντεκαιδεκάτῃ.

viii. *h.* Ἄρχοντος Καφισίου μηνὸς Βουκατίου τριακάδι.

There is another inscription, belonging to Chæronea, which relates to the consecration of a female slave to Artemis[c]: Ἐυπέδωνος ἄρχοντος, μηνὸς Θηλουθίου πεντεκαιδεκάτῃ. There is another, which relates to the sale of a male slave to Apollo Νασιώτας, at Chaleium, or Chalia[d], also a city of Bœotia[e]: Ἄρχον(τος μὲν ἐγ) Χαλείῳ Ἀλεξίνου μηνὸς Καρείου, ἐν δὲ Ἀμφίσσᾳ ἄρχοντο(ς Ἀριστά)ρχου μηνὸς Αἰραστυῶνος κ̀, τ. λ. Again, Hippodromius occurs in an inscription of Tanagra …ρω ἄρχοντος, μεῖνος Ἱπποδρομίω προτριακάδι[f]: i. e. the 29th *. Homoloïus and Alalcomenius occur in an inscription belonging to

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* This mode of designating the 29th, or δευτέρα φθίνοντος, ought to be noticed. The Florentine Hemerologium uses the same style, but in an abbreviated form, προτς, i. e. προτριακάδος.

[a] Cf. vol. i. page 265. *n.*

[b] No. 1608.

[c] No. 1609. i. 784.

[d] Steph. Byz. Χαλία· πόλις Βοιωτίας. Θεόπομπος μέ.

[e] No. 1607. i. 780. cf. No. 1567. p. 739.

[f] No. 1562. i. 735.

Tanagra: and the name of some other month, which has been lost—*a.* ...ς ἄρχοντος Ὁμολωΐω τρισκηδεκάτῃ[g]—*b.* Ἀμινοκλεῖος ἄρχοντος, the month following, but not at present read—*c.* Ἀλαλκο(μενίω)... the rest being lost.

We are thus made acquainted with the names of three more months at least, which in all probability made part of the Bœotian calendar, Careius, Theluthius, and Homoloïus; but nothing has yet appeared calculated to throw light on their order *inter se.* There is still however an inscription, belonging to Orchomenus, and probably the oldest of all, which may furnish a clue to this discovery, with respect to one of them at least, Theluthius, if not to more. This inscription is divisible into three parts, which Mr. Boeckh numbers i. ii. iii.[h] It will be necessary to quote the beginning of each.

i. Θυνάρχω ἄρχοντος, μεῖνος Θειλουθίω, Ἀρχίαρος Εὐμείλω ταμίας Εὐβώλυ Ἀρχεδάμω Φωκεῖι χρίος ἀπέδωκα ἀπὸ τᾶς σουγγράφω πεδὰ τῶν πολεμάρχων κὴ τῶν κατοπτάων, ἀνελόμενος τὰς σουγγράφως τὰς κιμένας παρ᾽ Εὔφρονα κ̀. τ. λ. καττὸ ψάφισμα τῶ δάμω.

ii. Θυνάρχω ἄρχοντος, μεῖνος Ἀλαλκομενίω, Ϝάρνων Πολυκλεῖος ταμίας ἀπέδωκε Εὐβώλυ Ἀρχεδάμω Φωκεῖι ἀπὸ τᾶς σουγγράφω τὸ κατάλυπον* καττὸ ψάφισμα τῶ δάμω, ἀνελόμενος τὰς σουγγράφως τὰς κιμένας πὰρ Σώφιλον κὴ Εὔφρονα Φωκεῖας, κὴ πὰρ κ̀, τ. λ.

From the comparison of these two sections, it appears that both must have related to the same business, the repayment by the steward of Orchomenus, in behalf of τὸ κοινὸν, of a debt to Eubulus, of Phocis, but by a *double* payment; once in the month Theiluthius, and again, in the month Alalcomenius. Evidences of the debt, called Σύγγραφοι, bonds or instruments of some kind, are recognised as previously in existence, in the custody of proper persons, and as cancelled by this repayment—but Syngraphi, distinct in themselves, and in the custody of different individuals, and cancelled by distinct payments—the officer who makes this payment in the first instance being called Archiarus, and he who does so in the second being called Farnon; and the bonds in the

* Corrige, τὸ καταλεῖπον or καταλιπόν.

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[g] No. 1563. i. 756.

[h] No. 1569. i. 740–746.

former instance, being in the keeping of Euphron, Phidias, Pasicles, and Timomelus, of Phocis, and of Damoteles and Dionysius, of Chæronea; in the latter, having been deposited with Sophilus and Euphron, of Phocis, and Dionysius and Lysidemus, of Chæronea.

It is manifest then that Archiarus, the steward, who made one of these payments, must have gone out of office, and Farnon, who made the other, must have come into office, between Theiluthius in which the former was made, and Alalcomenius in which the latter was; and the archon under whom both were made being the same, it will follow from that distinction, that though the same archon must have served for twelve months, the same *ταμίας*, or steward, could not have done so. And laying these facts together, and recollecting also that, as we have learnt from Plutarch, Alalcomenius was the *twelfth* month in the Bœotian calendar, we think it may be reasonably inferred that it was the rule at Orchomenus at this time to change the *ταμίας* every six months, though the archon served for a year; and that if one of these payments due to Eubulus was made in Theiluthius by one of these *ταμίαι*, of the same year (the year of *Θύναρχος*), and the other in Alalcomenius, by the other, in the same, as Alalcomenius was the twelfth month in the calendar, Theiluthius was probably the sixth, and these payments were made just six months asunder.

Let us then proceed to the *third* section, which relates to the sequel of these transactions, after the debt due to Eubulus had been paid.

iii. *Ἄρχοντος ἐν Ἐρχομενῦ Θυνάρχω, μεῖνος Ἀλαλκομενίω, ἐν δὲ Ϝελατίῃ Μενοίταο Ἀρχελάω, μεῖνος πράτω, ὁμολο(γ)ία Εὐβώλυ Ϝελατιήϋ κὴ τῇ πόλι Ἐρχομενίων· Ἐπειδεὶ κεκομίστη Εὔβωλος πὰρ τᾶς πόλιος τὸ δάνειον ἅπαν, κattὰς ὁμολογίας τὰς τεθεῖσας Θυνάρχω ἄρχοντος μεῖνος Θειλουθίω, κὴ οὔτ' ὀφειλέτη αὔτυ ἔτι οὐθὲν πὰρ τὰν πόλιν, ἀλλ' ἀπέχι πάντα περὶ παντὸς, κὴ ἀποδεδόανθι τῇ πόλι τὺ ἔχοντες τὰς ὁμολογίας, εἶμεν ποτιδεδομένον χρόνον Εὐβώλυ ἐπινομίας Ϝέτια πέτταρα... ἄρχι τῷ χρόνῳ ὁ ἐνιαυτὸς ὁ μετὰ Θύναρχον ἄρχοντα Ἐρχομενίυς κ̀, τ. λ.*

The instruments, called *σύγγραφοι* in the preceding sections, are here denominated *ὁμολογίαι*: and it is clearly supposed that *ὁμολογίαι* of this kind had been entered into in the month Theiluthius this year, which had been discharged some time before this third decree was past; and consequently by the payment in Alalcomenius, recognised in section ii. And this too is a strong confirmation of the conclusion, deduced from the comparison of the two preceding sections, that these months, Theiluthius and Alalcomenius, were six months asunder.

The agreement entered into on this last occasion, and recorded in this third part, is based upon the assumption that nothing was now due to Eubulus from the commune of Orchomenus; that he had received back from them all that he had lent them: but that nevertheless (and perhaps as an acknowledgment of the use of the money previously, and instead of any other kind of interest upon it) the people of Orchomenus should grant him the privilege of pasture on certain public lands, (not specified indeed in the inscription, but no doubt well understood,) for a certain description of cattle, such as horses, cows, sheep, and goats, and a stipulated number of each, free of charge, for *four* years; the first of these years to be that which would follow next on the date of the inscription, the year of Thynarchus, and the month Alalcomenius in that year, in which it was recorded.

Now as Alalcomenius was the last month of the official year, and the payment of the loan, lent by Eubulus in Theiluthius, before which he could not have been entitled to this privilege, was made in Alalcomenius, and the decree itself which conceded him this privilege, in lieu of the interest due on his loan until then, was passed in Alalcomenius, it is an obvious inference from this course of proceeding, that his money had been previously lent for six months; that it had been borrowed in Theiluthius, the sixth month of the year of Orchomenus, and had been paid back in Alalcomenius, the twelfth. And this decree, recording the close of the transaction, and conveying to Eubulus the usufruct of the public lands for a certain number of years, was purposely past at the end of the official year.

It is observable also, that while this decree, in the style of Orchomenus, was dated in Alalcomenius, in that of Elatea, of Phocis (of which Eubulus himself, we may presume, was a native), it was dated in the first month; i. e. Alalcomenius, at

Orchomenus, at this time was answering to the first month at Elatea, in Phocis. We know but little of the Phocian calendar; but both from the testimony of this inscription, and from that of another[i], and in fact from many others, of which we shall have occasion to say more on a future opportunity, it may be inferred that its months had no proper names, but were discriminated like those of the equable solar calendar, while it was still in use among the Greeks[k], solely by their numerical order. And this would have occasioned us much perplexity, had the Bœotian and the Phocian calendar of this time been necessarily the same; or had both been derived at the same time from the Primitive equable year: for on that supposition the first month in the Phocian must have agreed with the first in the Bœotian. But there is reason to conclude that the lunar correction of the Phocians is reducible under the Fifth Type, as the Bœotian is under the Second. And that being the case, it might often happen that the first month in the Phocian might be coinciding with the twelfth in the Bœotian; and there is no reason whatsoever *a priori* why this year of Thynarchus, among the Bœotians, in which this inscription of Orchomenus bears date, may not be supposed a year of that kind.

And this leads us to observe, with respect to the age of this inscription, that its internal evidence shews it to have been one of very high antiquity. It belongs to an æra not only when the people of Orchomenus and Elatea were *αὐτόνομοι,* and governed by laws and magistrates of their own, but when the Æolic dialect was still surviving in great purity among both. The digamma alone, which appears so often in the text of the inscription, independent of the other peculiarities of the Æolic idiom which appear in it also, is competent to vouch for its antiquity, and to stamp it as one of the oldest monuments of its kind which has come down to posterity. Mr. Boeckh considers it certainly older than Olymp. cxlv. B. C. 200, the date of another inscription of Orchomenus[l], and even if not older than Olymp. ciii. 2, B.C. 367—yet still to be dated some time between Olymp. cxi. B.C. 336, and Olymp. cxlv. B. C. 200. He thinks it possible however that it may have been as old as the Peloponnesian war; and in that opinion we ourselves are disposed to agree. We consider it at least the most probable supposition of all, that it belongs to a time when both the calendar of Bœotia and that of Phocis were still octaëteric.

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[i] No. 1725. i. 848.

[k] Cf. vol. i. p. 84 sqq.

[l] No. 1584.

From the testimony therefore of these inscriptions, there seems to be reason to conclude that the calendar, which we are at present considering, and which we have called the Bœotian, was in reality that of all the cities of the Bœotian League; not only of Thebes, but of Chæronea, and Tanagra, and Orchomenus, Chalia, and the rest: and Mr. B. is of the same opinion [m]. In this respect it was not singular; for we shall see hereafter that the Ionic calendar was common to all the cities of the Ionic community; i. e. all who concurred in the celebration of the Πανιώνια: and the Achæan calendar was common to all the members of the Achæan League; the Ætolian calendar to the whole of the Ætolian community; and probably also the Sicilian calendar to all or most of the Siciliot Greeks; and the Thessalian calendar to all the cities of Thessaly.

## SECTION VIII.—*On the name, and site in the Calendar, of the month* Θειλούθιος *or* Θειλαίθιος.

The name of this month occurs also in the calendar of the obscure city of Ægosthenia or Ægosthena [n], in the form of Θελουθίω and Θηλουθίω [o]; and it might have passed into that calendar from the Bœotian: for Ægosthenia was situated near Bœotia, and Pliny observes of the Ægosthenienses in his time [p] that they were Contributi Megarensibus. In the inscriptions first quoted supra, the name was written Θηλούθιος—in the last quoted, and most ancient probably of all, it is written Θειλούθιος. Mr. Boëckh, from his remarks on the names of the months which occur in these inscriptions [q], appears to have considered this term as ultimately the same with Θαλύσιος—and the month so called, because the Θαλύσια of antiquity were appropriated to it in the Bœotian calendar. The etymon of the name is a question which we reserve for the present; but with regard to this other characteristic of the month, the coincidence of the Θαλύσια of antiquity with it, we must first of all inquire into the nature of that ceremony, and what account the ancients have left of it.

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[m] Corpus Inscr. i. 732. The members of this League were those which celebrated the Παμβοιώτια in common: of which cf. Polyb. iv. 3, 5: ix. 34, 11: Eustathius, ad Il. B. 503. 268. 24: Pausanias, ix. xxxiv. 1.

[n] Muratorius, cxi. 4: and DXCI. 4. cf. Corsini F. A. i. tom. ii. 443, 444. Diss. xiv. 16

[o] Cf. however the Corp. Inscript. No. 1609. where Mr. B. gives this same inscription as one of Chæronea. See p. 292. supra, note c.

[p] H. N. iv. 11. cf. Xenophon, Hellen. v. iv. 18: Steph. Byz. Αἰγόσθενα.

[q] i. iv. 732 sqq.

Now the Θαλύσια of Grecian antiquity appear to have been of the nature of an annual thanksgiving for the different productions of the seasons, the fruits of the ground, or the fruits of trees; more especially for corn harvest of both kinds, and ingathering or vintage. The earliest allusion to such an annual thanksgiving feast, under this name, occurs in Homer[r]: and the ancients have remarked on his use of the word in that instance, that it was one of his ἅπαξ λεγόμενα[s].

> Καὶ γὰρ τοῖσι κακὸν χρυσόθρονος Ἄρτεμις ὦρσε
> χωσαμένη, ὅ οἱ οὔτι θαλύσια γουνῷ ἀλωῆς
> Οἰνεὺς ῥέξ᾽ ἄλλοι δὲ θεοὶ δαίνυνθ᾽ ἑκατομβάς—

on which the Scholiast: Θαλύσια, ἑορτὴ ἐν ᾗ τὰς ἀπαρχὰς τοῖς θεοῖς ἐπιθύουσι τῶν καρπῶν—Τὰς ὑπὲρ εὐθαλείας καὶ εὐφορίας τῶν καρπῶν διδομένας θυσίας μετὰ τὴν συγκομιδὴν τῶν καρπῶν . . . δηλοῖ δὲ ἃ ἡμεῖς φάμεν συγκομιστήρια—Οἰνεὺς ἀπαρχὰς θύων κατὰ Εὐριπίδην[t], ὅπερ ὁ ποιητὴς Θαλύσια ἐν γουνῷ ἀλωῆς ῥέζειν φησί[v]—Θαλύσια δὲ αἱ ἀπαρχαὶ, ὡς πρὸ ὀλίγων εἴρηται, ἤγουν αἱ μετὰ συλλογὴν τῶν καρπῶν διδόμεναι θεῷ ὑπὲρ τοῦ καὶ εἰς ἔπειτα θάλλειν τὰς ἀρούρας. τινὲς δὲ τῶν ῥητόρων καὶ συγκομιστήρια ταῦτα καλοῦσιν. ἅπαξ δ᾽ ἐνταῦθα κεῖται παρ᾽ Ὁμήρῳ ἡ λέξις[x]—Ἰστέον δὲ ὅτι ἐπὶ συγκομιδῇ καρπῶν, ἐφ᾽ ᾗ καὶ τὰ Θαλύσια ἐθύετο, ἑορτὴ ἤγετο Δήμητρος καὶ Διονύσου κατὰ Παυσανίαν, ἁλώα καλουμένη, διὰ τὸ ταῖς ἀπαρχαῖς καὶ μάλιστα ἐν Ἀθήναις ἀπὸ τῆς ἅλω τότε καταχρᾶσθαι, φέροντας εἰς Ἐλευσῖνα[y]—Θαλύσια· αἱ τῶν καρπῶν ἀπαρχαί[z]—Θαλύσιος ἄρτος· ἀπὸ τῆς ἅλω πεττόμενος πρῶτος[z]—Τὰς ὑπὲρ εὐθαλίας καὶ εὐφορίας τῶν καρπῶν διδομένας θυσίας, μετὰ τὴν συγκομιδὴν τῶν καρπῶν, τοῖς τε ἄλλοις θεοῖς καὶ τῇ Δημήτρᾳ[a]—Θαλύσια δὲ αἱ ἀπαρχαὶ, ἤγουν αἱ μετὰ τὴν συγκομιδὴν

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[r] Iliad, I. 529.

[s] Cf. Schol. ad I. 534: Eustath. ad I. 530. 772. 24.

[t] Cf. Schol. ad Ranas, 1269.

[v] Eustathius, ad Il. I. 525. 770. 22.

[x] Ibid. I. 530. 772. 22.

[y] Ibid.

[z] Hesychius.

[a] Etym. M. Θαλύσια.

*τῶν καρπῶν διδόμεναι θεῷ, ὑπὲρ τοῦ καὶ εἰς ἔπειτα θάλλειν τὰς ἀρούρας . . . ὅθεν τὰ Θαλύσια, ἐξ ὧν ὁ Θαλύσιος ἄρτος, ἤγουν ὁ ἐκ τῆς τῶν καρπῶν συγκομιδῆς πρῶτος γινόμενος*[b].

The seventh Idyll of Theocritus is entitled *Θαλύσια*; i.e. as the Scholiast explains it—*Ἑορτὴ ἣν ἐτέλουν Δημητρὶ, μετὰ τὴν συγκομιδὴν τῶν καρπῶν*: and the best idea of this festivity and of its possible time and place in the natural year, may be obtained from this Idyll itself—

> *Τῇ Δηοῖ γὰρ ἔτευχε Θαλύσια καὶ Φρασίδαμος*
> *κ᾽ Ἀντιγένης δύο τέκνα Λυκώπεος*[c] *κ᾽, τ. λ.*—

and though from the question which occurs in verse 24,

> *ἢ τινος ἀστῶν*
> *λανὸν ἐπιθρώσκεις* ;—

it might be supposed the occasion would turn out to be the celebration of vintage, and the time consequently that of the autumn, in reality it was in honour of the first of the ingatherings, that of barley harvest—

> *Ἁ δ᾽ ὁδὸς ἅδε Θαλυσιάς. ἦ γὰρ ἑταῖροι*
> *ἀνέρες εὐπέπλῳ Δαμάτερι δαῖτα τελεῦντι*
> *ὄλβω ἀπαρχόμενοι· μάλα γάρ σφισι πίονι μέτρῳ*
> *ἁ δαίμων εὔκριθον ἀνεπλήρωσεν ἀλωάν*[d].

And barley harvest itself in many parts of Greece, being liable to run into the middle of summer[e], it is not inconsistent with this explanation of the true cause and object of the festivity, that when it was now going on, some of the fruits of summer, (those of the opora properly so called,) as it appears from other parts of the description, were already ripe, and others fast ripening, and almost ready too—

> *Πάντ᾽ ὦσδεν θέρεος μάλα πίονος, ὦσδε δ᾽ ὀπώρας·*
> *ὄγχναι γὰρ πὰρ ποσσὶ παρὰ πλευρῇσι δὲ μᾶλα*
> *δαψιλέως ἄμμιν ἐκυλίνδετο· τοὶ δ᾽ ἐκέχυντο*
> *ὄρπακες βραβύλοισι καταβρίθοντες ἔρασδε·*
> *τετράενες δὲ πίθων ἀπελύετο κρατὸς ἄλειφαρ*[f].

Moreover that the harvest, whether barley or wheat, must only just have been over, appears from the further circumstance that one of the employments of those who attended on this occasion consisted in threshing out the new grain; for to thresh out the barley and wheat as soon as reaped, was the custom not of Greece only but of antiquity in general*; and the conclusion of the whole process of carrying and housing the grain—

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[b] Anecdota Græc. Paris. iii. 71. 11. in Iliad. I. 530.

[c] Ad vers. 3.

[d] vii. 31.

[e] Vide supra, vol. i. page 144 sqq.

[f] vii. 143.

> *Οἷον δὴ τόκα πῶμα διεκρανώσατε Νύμφαι,*
> *βωμῷ πὰρ Δάματρος ἁλωάδος· ἇς ἐπὶ σωρῷ*
> *αὖθις ἐγὼ πάξαιμι μέγα πτύον· ἁ δὲ γελάξαι,*
> *δράγματα καὶ μήκωνας ἐν ἀμφοτέρῃσιν ἔχοισα*[g].

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* In illustration of this custom, we may refer in the first place to Hesiod—

> *Δμῶσι δ' ἐποτρύνειν Δημήτερος ἱερὸν ἀκτὴν*
> *δίνεμεν εὖτ' ἂν πρῶτα φανῇ σθένος Ὠρίωνος,*
> *χώρῳ ἐν εὐαέϊ καὶ ἐϋτροχάλῳ ἐν ἀλωῇ*[1].

For it being intended by this direction that the corn should begin to be threshed as soon as Orion was seen to be rising heliacally, and the date of this phenomenon, as we have seen reason to conclude[2], assumed by Hesiod, having been June 27—it is clear that by such a time harvest could only just have been over; and therefore that, under such circumstances, the threshing must have followed on the reaping with little or no delay.

Moreover this phenomenon, and the accompanying one of the heliacal rising of Sirius, being the sign of the beginning of the *ὀπώρα*, threshing time would thus coincide with the beginning of the *ὀπώρα* too. Hence Homer's simile founded on that coincidence—

> *Ὡς δ' ὅτ' ὀπωρινὸς Βορέης νεοαρδέ' ἀλωὴν*
> *αἶψ' ἂν ξηράνῃ, χαίρει δέ μιν ὅστις ἐθείρει*[3].

Ἀλωὴ, according to Eustathius[4], was *ὁ τόπος ἐν ᾧ πατεῖται ὁ πυρός*: and, explaining the fable of the binding of Mars by the Aloeidæ for 13 months, he resolves it into the astronomical phenomenon of what he calls the *στηριγμὸς* of this planet: *Ὃν πάσχει γενόμενος πρὸς Καρκίνῳ καὶ Λέοντι ἐπὶ μῆνας ὀκτὼ, ἔτι δὲ καὶ ἐπὶ ἑτέρους πέντε κ͵, τ. λ. πρὸς οἷς ὁ ἥλιος γενόμενος τοῦ ἀλωᾶν ἐστιν αἴτιος*[5].

> *Ὡς δ' ὅτε τις ζεύξῃ βόας ἄρσενας εὐρυμετώπους*
> *τριβέμεναι κρῖ λευκὸν ἐϋτροχάλῳ ἐν ἀλωῇ·*
> *ῥίμφα τε λέπτ' ἐγένοντο βοῶν ὑπὸ πόσσ' ἐριμύκων*[6].

> *Ὡς δ' ἄνεμος ἄχνας φορέει ἱερὰς κατ' ἀλωὰς*
> *ἀνδρῶν λικμώντων, ὅτε τε ξανθὴ Δημήτηρ*
> *κρίνει ἐπειγομένων ἀνέμων καρπόν τε καὶ ἄχνας*[7].

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[g] ver. 154.

[1] Opp. et Dies, 595. cf. the scholia of Proclus.

[2] Supra, vol. i. 283, 284. note.

[3] Iliad. Φ. 346.

[4] Ad Il. E. 499. 575. 40.

[5] Ad Il. E. 387. 560. 39. cf. the scholia ad Il. E. 385.

[6] Iliad. Υ. 495.

[7] E. 499: which Eustathius in locum explains as a description of the *Καιρὸς θέρους* and the *Τέχνη λικμήσεως*.

*Εὔδημος τὸν νηὸν ἐπ' ἀγροῦ τόνδ' ἀνέθηκε*
*τῷ πάντων ἀνέμων πιοτάτῳ Ζεφύρῳ·*
*εὐξαμένῳ γάρ οἱ ἦλθε βοαθόος, ὄφρα τάχιστα*
*λικμήσῃ πεπόνων καρπὸν ἀπ' ἀσταχύων*[8].

*Σῖτον ἀλοιῶντας φεύγειν τὸ μεσαμβρινὸν ὕπνον·*
*ἐκ καλάμας ἄχυρον τελέθει ταμόσδε μάλιστα*[9].

*Κάλλιον ὡς καλάμην τε καὶ ἱερὰ δράγματα πράτα*
*ἀσταχύων ἀπέκοψε, καὶ ἐν βόας ἧκε πατῆσαι,*
*ἁνίκα Τριπτόλεμος ἀγαθὰν ἐδιδάσκετο τέχναν*[10].

*Φέρβε βόας· φέρε μᾶλα· φέρε στάχυν· οἶσε θερισμόν*[11].

*Γυῖα δὲ πάντα λίπαζε καὶ εἰς ὁδὸν ἢ ἐπὶ κοῖτον,*
*ἢ ὅταν αὐαλέου θέρεος μεθ' ἁλωΐα ἔργα*
*ζωσάμενος θρίναξι βαθὺν διακρίνεαι ἄντλον*[12]—

*Οἷον δ' ἐργατίναι Δηοῦς πόνον ἐκτελέσαντες,*
*πνοιῇς χερσαίοις τε διακρίναντες ἐρετμοῖς,*
*καρπὸν ἐϋτροχάλοιο μέσον κατὰ χῶρον ἀλωῆς*
*πολλὸν ἐνηήσαντο· περιπλήθουσα δὲ πάντη*
*πυροδόκος στεφάνη λευκαίνεται ἔνδον ἀλωῆς*[13]—

*Κρίνω ἐγὼ πυρὸν καὶ ἀχυρμιάς· ἐν δὲ Λέοντι*
*ἀτρεκέα τελέθει κύματα Νηϊάδων*[14].

Magnaque cum magno veniet tritura calore.
At si luxuria foliorum exuberat umbra,
Nequidquam pinguis palea teret area culmos[15]—

At rubicunda Ceres medio succiditur æstu,
Et medio tostas æstu terit area fruges[16].

Sæpe etiam cursu quatiunt et sole fatigant,
Quum graviter tunsis gemit area frugibus, et quum
Surgentem ad Zephyrum paleæ jactantur inanes[17].

Rura colam, frugumque aderit mea Delia custos,
Area dum messes sole calente teret[18].

Rura ferunt messes, calidi quum sideris æstu
Deponit flavas annua terra comas[19].

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[8] Anthologia, i. 86. Bacchylides, xx.

[9] Theocritus, Idyll. x. 48. cf. the scholia in loc.

[10] Callimachus, Hymn. in Demetera, 20.

[11] Ibid. 137.

[12] Nicander, Theriaca, 112.

[13] Oppian, Halieutica, iv. 496.

[14] Anthologia, iii. 219. *Μῆνες Ῥωμαίων.* Julius.

[15] Virgil, Georg. i. 190.

[16] Ib. 297.

[17] Ib. iii. 132.

[18] Tibullus, i. v. 21.

[19] Ibid. ii. i. 47.

Non quidquid Lybicis terit
  Fervens area messibus[20].

Infamem nimio calore Cypron
Observes moneo precorque Flacce,
Messes area cum teret crepantes,
Et fulvi juba sæviet Leonis[21].

Hic Hyperionii flagrat via solis, et isto
Se duce cærulei referunt momenta caloris.
Tunc succisa Ceres statim cum mergite culmi
Construitur, flavos tondentur semina crines
Omnia, et advectas late coquit area messes[22].

Hinc in messe tritura, quod tum frumentum teritur[23]—*Ἤιδετο δὲ ὁ θρῆνος περὶ τὰς ἅλως καὶ τὸ θέρος, ἐπὶ Μίδου παραμυθίᾳ*[24]—*Ἐν ὥρᾳ θερείῳ περὶ τὰς ἅλως ἀμητοῦ κατειληφότος, καὶ τῶν σταχύων τριβομένων ἐν τῷ δίνῳ, κατ' ἶλας συνίασιν οἱ μύρμηκες κ', τ. λ.*[25]—*Ἀλοῶντες ἄνθρωποι τοῦ ἡλίου καταφλέγοντος, διψῇ πιεζόμενοι κ', τ. λ.*[26]—*Ὦ τοῦ παντὸς ἔτους τροπὴ καλλίστη* (midsummer) *καὶ τίμιος, ἐν ᾗ τὰ τῆς χώρας ἐξαιρετὰ Δημήτηρ καὶ Βάκχος συμβαίνουσιν, ἡ μὲν ἤδη πονοῦσα περὶ τὰς ἅλως καὶ λήγουσα, ὁ δὲ πρὶν λήγειν ἀρχόμενος, δώρῳ τὸ ἔξωρον διαδεχόμενος*[27]—(the meaning of this being, that as the threshing out of the harvest ended with the beginning of the *ὀπώρα*, so the grape began to ripen with the ingress of the same natural season.)

At in Bactris, Africa, Cyrene, omnia hæc supervacua fecit indulgentia cœli. a semente non nisi messibus in aream redeunt: quia siccitas coercet herbas, fruges nocturno tactas rore nutriens[28]—*Πυρωθέντα πάντα τὰ σπέρματα ἀπόλλυται, καὶ ἀβλαστῆ γίνεται. καίτοι περί γε Βαβυλῶνά φασι τὰς κριθὰς καὶ τοὺς πυροὺς ἐπὶ τῆς ἁλῶ πηδᾷν, ὥσπερ τὰ φρυγόμενα*[29]. In like manner, according to Himerius[30], the corn was threshed as soon as reaped, in Egypt also, and at midsummer, when the Nile was beginning to rise.

Cum vero æstas summa esse jam cœperat, quod tempus omnes Siciliæ semper prætores in itineribus consumere consueverunt, propterea quod tum putant obeundam esse maxime provinciam cum in areis frumenta sunt, quod et familiæ congregantur, et magnitudo servitii perspicitur, et labor operis maxime offenditur, et frumenti copia commonet, anni tempus non impedit[31] &c.: and it appears the corn so threshed at this time was kept some time on the spot, i. e. in areis[32].

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[20] Seneca Trag., Thyestes, 356.

[21] Martial, ix. 91. 9.

[22] Festus Avienus, Aratea Phæn. 396. cf. Germanici Cæs. Aratea, 152—
Et densas lætus segetes bene condit arator.

[23] Varro De Lingua Lat. iv. p. 8.

[24] Pollux, Onomasticon, iv. vii. 2. § 55.

[25] Ælian, De Nat. Anim. ii. 25.

[26] Ibid. xvii. 37.

[27] Himerius, Oratio viii. 3. p. 544.

[28] Pliny, xviii. 50. p. 169.

[29] Theophrastus, Hist. Pl. viii. 11, 7.

[30] Oratio xiv. § 8. p. 618, 619.

[31] Cicero, in Verrem, v. 12, 29. Oratt. x.

[32] Ibid. iii. 14, 36. Oratt. viii.

All the directions in Varro[33], relating to the harvest, suppose the corn to be carried from the fields at once to the area, to be threshed out there and then. So likewise Columella[34], and Palladius[35]. The Geoponica also[36]:—Τὸν δὲ λικμηθέντα σῖτον ἤτοι κριθὴν ἐατέον ἐπὶ τῆς ἅλω μίαν καὶ δευτέραν ἡμέραν[37]—Ἀπὸ τῆς πρὸ θ′ Καλανδῶν Ἰουλίων ἀλοῆσαι, οὔτε γὰρ ὄμβροι οὔτε δρόσοι ἐν ταύταις γίνονται ταῖς ἡμέραις[38].

It may be proved from Demosthenes, πρὸς Φαίνιππον περὶ ἀντιδόσεως[39], that in the year in which that oration was delivered the corn in Attica had been threshed before the second of Metageitnion:—Τοῦ γὰρ Μεταγειτνιῶνος μηνὸς, ὦ ἄνδρες δικασταὶ, τῇ δευτέρᾳ ἱσταμένου ἐποίουν οἱ στρατηγοὶ τοῖς τριακοσίοις τὰς ἀντιδόσεις[40]—Μετὰ δὲ ταῦτα ἠρόμην ὅπου ὁ σῖτος εἴη ὁ ἀπηλοημένος, ἦσαν γὰρ . . . δύο ἅλως αὐτόθι . . . ὁ δὲ ἀπεκρίνατό μοι ὅτι . . . ὁ δ' ἔνδον ἀποκείμενος[41].

Lastly, the story which has been left on record of Democritus and his brother Damasus[42], proves the same thing among the Greeks; viz. that it was usual to thresh out the corn as soon as reaped.

Mention occurs of a festival in the Attic calendar, called the Ἁλῶα.—Ἑορτή τις τὰ ἁλῶα, προσαγορευθεῖσα ἀπὸ τῆς ἀλοήσεως τῶν καρπῶν[43]—Ἁλῶα δ' ἦν, κἀπὶ τὴν παννυχίδα πᾶσαι, ὥσπερ ἦν εἰκὸς, παρ' ἡμῖν[44]—Καὶ ἄλλην ὥραν ἔχει ἄλλος θεὸς, Παναθήναια, Σκιρροφόρια, Ἅλωα, Ἀπατουρία[45]: where as the Panathenæa may be understood of the month Thargelion, and the Σκιρροφόρια must be so of the month Skirrhophorion, the Ἀπατούρια of the month Pyanepsion, the Ἁλῶα would seem to require to be understood of Hecatombæon or Metageitnion. Harpocration, after Philochorus, dates them in Posideon: Ἑορτή ἐστιν Ἀττικὴ τὰ Ἁλῶα, ἥν φησι Φιλόχορος ὀνομασθῆναι ἀπὸ τοῦ τότε τοὺς ἀνθρώπους τὰς διατριβὰς ποιεῖσθαι περὶ τὰς ἅλως[46]. ἄγεσθαι δὲ αὐτήν φησιν ἐν τῷ περὶ ἑορτῶν Ποσειδεῶνος μηνός. It is incredible however that the Ἁλῶα could actually have been dated by Philochorus in Posideon. The truth is, there was a ceremony in honour of Posidon, which made part of the Ἁλῶα also: and there is probably some confusion here between the name of the god and the name of the month: Ἁλῶα, ἑορτὴ Δημητρὸς καὶ Διονύσου. προσαγορεύεται δὲ διὰ τὸ ταῖς ἀπαρχαῖς, ταῖς ἀπὸ τῆς ἅλω, τότε καταχρήσασθαι. φέροντας εἰς Ἐλευσῖνα[46]. ἢ ἐπεὶ ἐν ἅλωσιν ἔπαιζον ἐν τῇ ἑορτῇ. ἤγετο δὲ ἐπὶ συγκομιδῇ τῶν καρπῶν ἑορτὴ ἁλῶα, ἐν ᾗ καὶ Ποσειδῶνος πομπή[47]. It is very probable their actual date was the 8th of Hecatombæon, or the 8th of Metageitnion. In like manner the Neptunalia among the Romans were a feast of summer, the stated date of which was July 23. See our Origines Kal. Italicæ, ii. 549, note.

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[33] De Re Rustica, i. 50–52.

[34] ii. cap. xxi.

[35] vii. Tit. i. § 1.

[36] ii. 26. [37] ii. 25.

[38] iii. 6. cf. iii. 11. ad finem.

[39] Oratio xlii.

[40] Orat. xlii. § 7.

[41] § 9. cf. 26.

[42] Clemens Alex. Strom. vi. 32. 116. 24–31.

[43] Anecdota, 208. 22.

[44] Alkiphron Epp. i. xxxiii. cf. Lucian, iii. 280. Dialog. Meretricum, i. 6. 298: vii. 32.

[45] Maximus Tyrius, iii. 10.

[46] Cf. the Anecdota, 381. 14: and Suidas Ἁλῶα.

[47] Anecdota, 384, 31: cf. Eustath. in Il. I. 530. 772, 27.

This Idyll therefore serves as a very good illustration of the *θαλύσια*, first mentioned in Homer, as explained by the scholiasts and grammarians of antiquity; an annual eucharistic ceremony, in acknowledgment of the bounty of nature, and of the safe bestowal of the productions of the seasons. There might consequently be as many occasions of this kind, as there were ingatherings in the course of the year: and it cannot fail to occur to the reader that the Jews had three such *θαλύσια*, each of them of divine appointment; one for barley harvest, at the feast of the Passover, another for wheat harvest, in the feast of weeks, and a third for the vintage and the last ingathering, in the feast of tabernacles. The Θαλύσια of Œneus appear to have been of this latter description; a feast which he was celebrating after the vintage, in honour of all the gods who presided over the year and the seasons, except Artemis; an omission howsoever produced, which she resented, by sending into his vineyards the Caledonian boar[h].

Such being the occasion then, and such the end and design of the Θαλύσια of antiquity, they might have coincided in a particular instance with the end of barley harvest or with the end of wheat harvest—in which case their proper time would have been just before or just after midsummer. But they might also have coincided with the end of the vintage or the olive gathering; and in that case their proper site in the natural year would have been the autumn: and even to admit that the month Θειλούθιος in the Bœotian calendar might have derived its name from the Bœotian Θαλύσια—it must still be precarious to assume that it did so from the Θαλύσια of summer, and not from the Θαλύσια of autumn.

But indeed to derive this name from that of the Θαλύσια would be an etymological impossibility. On that principle, its first and original form must have been Θαλύσιος; and it would be impossible to shew by what variation of dialect Θελούθιος or Θειλούθιος could have been obtained from Θαλύσιος, or how it should have come to pass that the name of the feast was retained in its simplicity, in the form of Θαλύσια, but the name of the month, called after it, changed from Θαλύσιος to Θειλούθιος. The true etymon of the name, in our opinion, is discoverable even from the name itself; but before we can proceed to explain it, we must premise that as it occurs on the different inscriptions referred to supra, both Θειλούθιος and Θηλούθιυς, it is possible it may not occur correctly in any of them. And this leads us to observe that an inscription is extant also, in which a name appears as that of one of the months of Mitylene in Lesbos[1], in the form of Θελαίσιος—between which and Θελαίθιος the difference is so slight, that it may well be considered probable the true reading in this instance should be Θελαίθιος, not Θελαίσιος. And this emendation being adopted, the corrected form of the name of this Mitylenian month Θελαίθιος approximates so closely to that of the Bœotian Θειλούθιος, that we may venture to say both names must have been originally the same; and one of them consequently as it stands at present is to be corrected by the other. And if we may assume that the Bœotian is to be corrected by the Mitylenian, and not the Mitylenian by the Bœotian, the genuine and original form of the Bœotian name will be Θελαίθιος or Θειλαίθιος, not Θειλούθιος; and the form of the name of which we shall have to assign, if possible, the etymology, will be Θειλαίθιος.

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[h] Cf. Apollodorus, Biblioth. i. viii. § 2: Hyginus, Fabb. clxxii. Œneus; and ccxxiv. Meleager: Antoninus Liberalis, Metamorph. cap. ii: Scholia ad Ranas, 1269. Ovid was clearly of this opinion—

Œnea numque ferunt pleni successibus anni
Primitias frugum Cereri, sua vina Lyæo,
Palladios flavæ latices libasse Minervæ. Metam. viii. 273.

Cf. after this ver. 546, in the story of Theseus and the Achelous; which shews that the hunting of the Caledonian boar, after these Θαλύσια, had taken place in the autumn, and in the rainy season.

Now such a name as this of Θειλαίθιος explains itself. It is a compound word; and the first of its elements appears in the following passage of the Odyssey, H. 122:

> Ἔνθα δέ οἱ πολύκαρπος ἀλωὴ ἐρρίζωται—
> τῆς ἕτερον μὲν θειλόπεδον λευρῷ ἐνὶ χώρῳ
> τέρσεται ἠελίῳ· κ῾, τ. λ.

i. e. in the Θειλόπεδον here alluded to; which the scholiasts and grammarians of antiquity explain as equivalent to εἱλόπεδον, as they do εἵλη, of the warmth and light of the sun.

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[1] No. 2265 b. ii. 1037, 1038, Addenda.

Θειλόπεδον· ὁ τόπος ἐν ᾧ ξηραίνονται αἱ σταφυλαὶ ἢ ἕτερα τινά... παρὰ τὸ ἕλη ὃ σημαίνει τὴν θερμασίαν, γίνεται εἵλη...καὶ (παρὰ) τὸ πέδον, ὃ σημαίνει τὴν γῆν . . γίνεται εἱλόπεδον[k] — Θηλόπεδα· ὁ τόπος ἐν ᾧ ξηραίνεται ἡ σταφυλή· εἴρηται δὲ ἀπὸ τοῦ θέρεσθαι ἐν τῷ ἡλίῳ καὶ τῷ πέδῳ[l] — Εἵλη· ἡ τοῦ ἡλίου αὐγή· ἡ θερμασία[m] — Εἱληθερεῖν· ἐν ἡλίῳ θερμαίνεσθαι. εἵλην γάρ φασι τὴν τοῦ ἡλίου αὐγήν[m]—Ἕλη γάρ ἐστιν ἡ τοῦ ἡλίου αὐγή· ὅθεν καὶ τὸ εἱληθερεῖν τὸ ἡλίῳ χρῆσθαι[n].

The first of the elements then in the name of this month is θείλη, the digammated form of εἵλη, ἡ τοῦ ἡλίου αὐγή. With respect to the second, which enters it in the form of αἴθιος; αἴθιος, as an epithet or adjective, would be regularly derivable from αἶθος: as αἶθος again would be from αἴθω. And the proper sense of αἴθω in Greek, it appears, was not simply to burn, like καίειν—but to burn with light, as well as heat—to burn with a blaze, or visible emission of light. Hence, αἴθεται is explained by Hesychius, καίεται λαμπρῶς: and αἶθος, used as an adjective, by λαμπρός. The sense of αἶθος the substantive is analogous to this; that of fire, with heat and light at once. Αἶθος, as Suidas explains it, was ὁ ἐκκαύστης: and according to the scholiast on Apollonius Rhodius[o], with still greater propriety, Αἶθος λέγεται τὸ πῦρ καὶ ἡ φλόξ. The word itself occurs both as αἶθος masculine, and αἶθος neuter: the former in the Supplices of Euripides[p],

Αἶθόν τ' ἐξαμύνασθαι θεοῦ—

and also in the Rhesus[q],

Ναῦσιν αἶθον ἐμβαλεῖν—

the latter in Apollonius Rhodius, in the description of the Bulls of Æetes, and of Jason's encounter with them[o],

Τὸν δ' ἀμφί τε δήϊον αἶθος
βάλλεν ἅτε στεροπή—

in which the peculiar property of their breath is expressed by this word αἶθος, yet as compared to lightning, which is heat and flame in conjunction; burning and blasting in one of its component parts, blazing and lambent in the other.

The two elements therefore of this name are θείλη and

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[k] Etym. M. in voce.

[l] Hesychius, in voce.

[m] Hesychius. cf. in ἅειλα: Εἰλήϊον: εἰληθερῶν: εἰληθερούμενος: Phot. Lex. εὔειλος: πρόσειλος: Etym. M. ἅειλα.

[n] Schol. ad Od. i. 21. Εὐδείελον.

[o] Ad iii. 1303.

[p] ver. 208.

[q] ver. 990.

*αἶθος* in conjunction; and it was so called from the light of the sun, as denoted by the one, and from the heat of that light, as denoted by the other. It took its name, from the two most characteristic properties of the sun's rays, when each is the most intense of its kind—light and heat in combination; not light without heat, nor heat without light, but each in conjunction with the other. Such a name then points to the site of the month in the natural year. It could have been given to none in the calendar but that which coincided with midsummer; i. e. that season of the natural year when the light of the sun, and the heat of that light, are most intense, and most in proportion to each other. And it could have corresponded to no month in the Attic calendar but Skirrhophorion, which also coincided with midsummer, and derived its name, as we have seen, from the practice of carrying umbrellas, as a necessary protection against the heat and glare of the sun in that month.

Having then these additional data, collected from the testimony of inscriptions, we are now in a condition to compare the Bœotian with the Attic calendar, as each of them stood at first, and as each was standing in the time of Plutarch; and with two exceptions only, throughout.

*Comparison of the Bœotian Calendar with the Attic, both originally and in the time of Plutarch.*

| Bœotian Calendar. | Attic Calendar in the time of Solon. | Attic Calendar of the time of Plutarch. |
|---|---|---|
| i Βουκάτιος | i Γαμηλιών | vi Ποσειδεών |
| ii Ἑρμαῖος | ii Ἀνθεστηριών | vii Γαμηλιών |
| iii Προστατήριος | iii Ἐλαφηβολιών | viii Ἀνθεστηριών |
| iv * * * | iv Μουνυχιών | ix Ἐλαφηβολιών |
| v Καρεῖος | v Θαργηλιών | x Μουνυχιών |
| vi Θειλαίθιος | vi Σκιρροφοριών | xi Θαργηλιών |
| vii Ἱπποδρόμιος | vii Ἑκατομβαιών | xii Σκιρροφοριών |
| viii Πάνεμος | viii Μεταγειτνιών | i Ἑκατομβαιών |
| ix Ὁμολώϊος | ix Βοηδρομιών | ii Μεταγειτνιών |
| x * * * | x Πυανεψιών | iii Βοηδρομιών |
| xi Δαμάτριος | xi Μαιμακτηριών | iv Πυανεψιών |
| xii Ἀλαλκομένιος | xii Ποσειδεών | v Μαιμακτηριών |

We shall therefore conclude this part of our subject with some remarks on the probable etymon and meaning of these names; such at least as have not been anticipated.

## SECTION IX.—*On the Etymology of the names of the Bœotian months.*

i. Βουκάτιος. Mr. Boeckh derives this name *ἀπὸ τοῦ καίνεσθαι βοῦς* [r]: and this derivation appears to have the sanction of Plutarch, as quoted at least by Proclus [s]: *Διὰ τὸ πλείστους ἐν αὐτῷ διαφθείρεσθαι βόας.* On etymological principles it would not be objectionable; but with respect to the matter of fact, or the reason assigned for giving a name so derived to the first month in the Bœotian calendar, viz. that more sacrifices were offered in that month, than in any other; whether that was actually the case is a very questionable point. It is not known that any such distinction characterized the first month of the calendar in any instance whatever, among the Greeks. Βουκάτιος was the name of a month in the Delphian calendar; and it must have been so called in that calendar, *παρὰ τὸ καίνεσθαι βοῦς*, if it was so for that reason in the Bœotian*. Yet this Delphian month Bucatius, as we hope to see hereafter, corresponded to the Attic Skirrhophorion. And here we may remark the following coincidence; that the 14th of the month Skirrhophorion in the Attic calendar was the stated date of a very ancient ceremony called the Βουφόνια; which the grammarians of antiquity explain, as they do the name of Βουκάτιος, *ἀπὸ τοῦ θύεσθαι βοῦς πολλοὺς ἐν ταύτῃ τῇ ἡμέρᾳ* [t], but which the tradition connected with the first occasion of the ceremony itself, as handed down by Porphyry [v] and others, would imply to have really derived, or been supposed to have derived, its name, from the institution of animal sacrifice, and the first offering of such an animal as the ox in sacrifice at all. Without therefore calling in question the etymological explanation of the name, still we may contend the historical was possibly a primitive tradition, relating to the institution of animal sacrifice, which might have gone back as far as the Fall; or to the first concession of the flesh of animals for food; which would go back to the descent from the ark, and the second beginning of things.

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* It was also the name of one in the Thessalian Calendar, of which, for a particular reason, this explanation might have held good. But this was not the *first*.

[r] Corp. Ins. iv. 732 sqq.

[s] Supra, Page 288.

[t] Etym. M. Βουφόνια. Anecdota Græca, 221. 22

[v] De Abstinentia, ii. 10. cf. Suidas, Βουφόνια and Θαύλων. See vol. i. page 535 *n*.

ii. Ἑρμαῖος. A month of this name meets us in various calendars; sometimes in the form of Ἑρμαῖος, sometimes in that of Ἑρμεῖος. And there is little reason to doubt that in either form the name was derived from the Greek of the Latin Mercurius, or the Egyptian Thoth, Ἑρμῆς; the former from the Doric form Ἑρμᾶς, the latter from the Ionic Ἑρμῆς: and if so, the month was probably so called in honour of Hermes. We know too that Ἑρμαῖα (from the name of Ἑρμῆς also, and no doubt in honour of Ἑρμῆς) were celebrated in many of the Greek calendars; and Mr. B. is of opinion that the Ἑρμαῖα of the Bœotian were celebrated in this month, and gave name to it: an opinion to which there is no objection *a priori;* though we do not know for certain that Ἑρμαῖα were celebrated among the Bœotians as we know they were at Athens and Syracuse[c], and among the Arcadians[d]: much less that they were celebrated in this month.

iii. Προστατήριος. This name is evidently derived from Προστατὴρ, as the same with Προστάτης, and in the sense of φύλαξ, or σωτὴρ[e], guardian or saviour: but from its supposed relation to which of the divinities, does not appear. Προστατήριος was a common title of Apollo. Τὸν Ἀπόλλωνα οὕτω λέγουσι, παρόσον πρὸ τῶν θυρῶν αὐτὸν ἀφιδρύοντο[f]—

Κλύοις ἂν ἤδη, Φοῖβε προστατήριε,
κεκρυμμένην μου βάξιν[g].

There was a temple of Apollo Προστατήριος, at Megara[h]: and an inscription is extant[i], Ἀγαθῇ τύχῃ· Ἀπόλλωνι Προστατηρίῳ. But the same title was applied to Artemis, and at Thebes also:

Προστατηρίας
Ἀρτέμιδος εὐνοίαισι[k].

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[c] Schol. in Platon. ii. 319. Lysis, 114. 17.

[d] Pindar, Ol. vi. 134. and Schol. ix. 146: xiii. 155: Nemea, x. 82. and the Schol.

[e] Cf. Schol. in Soph. ad Trachin. 209. Προστάτην.

[f] Hesychius, in voce.

[g] Soph. Electra, 637.

[h] Pausanias, i. xliv. 2.

[i] Corpus Inscript. 464. 1. 466.

[k] Sept. contra Theb. 449.

on which the Scholiast observes: *Ὅτι ἐν ταῖς πύλαις, αἷς ὑπερμαχεῖν ἔμελλεν, ἡ Ἄρτεμις ἦν, καὶ τούτων προστάτις ἐγέγραπτο.* It is manifest that, *virtute termini*, it was just as applicable to one tutelary divinity as to another; and forasmuch as the Thebans had from the first a divinity of that kind in relation to their own city in particular, their *Ἀθήνα Ὄγκα*, to whom their city was dedicated by Cadmus, and under whose protection it was placed by him from the first, we think it most probable that this third month of their calendar, called after the *Προστατὴρ* or *Προστάτις* absolutely, was so called after her. And it is no slight confirmation of this conclusion (as may appear hereafter) that in the Julian calendar the month so dedicated to the patroness of Thebes coincided partly with the month of March, and partly with that of April.

iv. The name of this fourth month is still a desideratum. We can assume only that whatsoever it was called it must have answered to the Attic Munychion and to the Julian April.

v. *Καρεῖος.* We know of this month in the Bœotian calendar only from the inscription belonging to *Χαλία*, produced supra[l]. With respect to its etymon, *Καρεῖος* would be an adjective regularly derived from *Κᾶρος*; and *Κᾶρος* would be the Doric form of *Κῆρος*, the Greek for the wax formed by the bee; and by synecdoche, for the honey and the honeycomb. The substitution of the *α* for the *η*, so common in the Doric dialect, is not indeed equally characteristic of the Æolic; but that it was sometimes done in that dialect appears from the inscriptions cited supra[m]. There is no objection then *a priori* to the derivation of this name from *Κᾶρος*, Æolice for *Κῆρος*, an honey-comb: and that being assumed, it will follow that it must have been the name of some month in which honey and beeswax were most abundant. The first month for the climate of Greece, in which the bees were accustomed to swarm, and consequently the first by which their hives were full, after the winter, was that, as we were told[n], of the heliacal rising of the Pleiads; and that this was one of the times at which it was usual to take their honey appears from Virgil[n]—

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[l] Page 292.

[m] Page 293. 294.

[n] Georg. iv. 231. cf. vol. i. 156 note.

> Bis gravidos cogunt fetus, duo tempora messis,
> Taÿgete simul os terris ostendit honestum
> Pleias, et oceani spretos pede reppulit amnes,
> Aut eadem sidus fugiens ubi Piscis aquosi
> Tristior hibernas cœlo descendit in undas—

the former of which describes the heliacal rising, the latter the cosmical setting, of the Pleiads; the former, in these times, a regular phenomenon of the Julian May, the latter of the Julian November. It follows that the *μὴν Καρεῖος*, the honey-month of the Bœotian calendar, was either May or November; and the latter having been appropriated to the Bœotian Damatrius, the former only could have been open to this. If so, this month in the Bœotian answered to May in the Julian, and to Thargelion in the Attic calendar. It confirms this conclusion that the mensis *Καρεῖος*, at Chalia, in the inscription in question, was compared with the month *Αἰραστυὼν* in the calendar of Amphissa, of Locris. This name of *Αἰραστυὼν* is confessedly a difficult one, nor is this the proper time to enter upon its explanation; but we hope to shew hereafter that, *virtute termini* itself, this too must have corresponded to the Attic Thargelion: and if this, Kareius too.

vi. *Θειλαίθιος*. We have said enough in explanation of the etymon of this name, and of the correspondence of the month so called to the Attic Skirrhophorion. We will observe only further, that the variations in the orthography of the name in the different inscriptions on which it occurs, *Θελαίσιος*, *Θελούθιος* or *Θηλούθιος*, *Θειλούθιος* or *Θηλούθιος*, are only accidental or dialectical variations, if not corruptions; but that the genuine form, and the only one consistent with the natural site of the month, from which we obtained the explanation of the name itself, must have been *Θειλαίθιος*.

vii. *Ἱπποδρόμιος*. Mr. Boeckh derives this name from the *Ἱπποδρόμια* or *Ὀγχήστια*, celebrated at *Ὀγχηστός*, in Bœotia, in honour of Posidon. Hippodromius was certainly a title of Posidon [n].

> *Ἄμμι δ᾽ ἔοικε Κρόνου σεισίχθον᾽ υἱὸν,*
> *γείτον᾽ ἀμειβομένοις εὐεργέταν*
> *ἁρμάτων ἱπποδρόμιον κελαδῆσαι.*

[n] Pind. Isthmia, i. 76

It is certain too, that for some reason or other, both among the Greeks and the Romans, Posidon, or Neptunus[o], was the great patron of horse and chariot races. Mr. Boeckh's opinion therefore, respecting the etymon of this month, may be correct. We will observe however that as this month in the Bœotian calendar must have corresponded closely to Hecatombæon, in the Attic, and to Apollonius, in the Elean, the Olympic Games under the old octaëteric cycle must have been as regularly celebrated in this Bœotian month, as in either of the other two; in proof of which we will mention only this fact—that Ol. liv. (the first after the adoption of the lunar correction among the Bœotians, B.C. 567) the Olympic feriæ were July 15–20, the true luna 11–16; Hippodromius 11–16, but Hecatombæon or Apollonius 16–21. And this coincidence, which held good at the time of the adoption of the lunar Bœotian calendar, might have something to do with the choice of the name of this month, which must have been first given it at this time. The horse and chariot races were those of the Games at Olympia which were most likely *a priori* to be fixed upon to give name to the Olympic month; partly because they were the most illustrious, and partly because they were the conclusion of the ceremony *.

viii. *Πάνεμος*. This name appears in many of the calendars of the Greeks, but in none which was older than the Bœotian: and it is found written both *Πάνεμος*, *Πάνημος*, and *Πάναμος*, the latter the Doric form of *Πάνημος*. We reserve any further explanation of it for a future opportunity; and we hope then to make it appear that if the harvest of both kinds for the climate of Bœotia, in the natural course of things, was not liable to be entirely over before the latter half of July, or the first half of August, a name such as this might with great propriety have been given to the month, which was either the last of the harvest months, or the next after the last—as the Bœotian Panemus, the eighth in this calendar, must have been. That this month, in the Bœotian, answered to Metageitnion, in the Attic, has been seen.

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* A month of this name occurs in the Thessalian calendar, corresponding to the Attic Metageitnion and the Julian August: and *there* the *prima facie* explanation of the name, that of the *horse-racing* month, is probably the true. But it occurs also in the calendar of Callipolis in Ætolia, corresponding strictly in that, as it does in the Bœotian, to the Attic Hecatombæon, and the Julian July. We are strongly of opinion therefore that the true explanation in each of these instances lies below the surface; and is to be derived from the relation of the month so called to the natural year.

The sun being regarded as the great *ἡμεροδρόμος* or *ἱπποδρόμος* of the heavens, the Hippodromian month *κατ' ἐξοχὴν* would be that in which the daily course or journey of the sun was the largest and longest of any in the year. And this would be the month next to the summer solstice.

[o] Cf. our Fasti Cathol. ii. 549 note.

ix. Ὁμολώϊος. The existence of this month too, and under this name, in the Bœotian calendar, is known only from the inscriptions produced supra. With regard to the etymon, Mr. Boeckh is of opinion it was so called from the Ὁμολώϊα, a joint festival in honour of Jupiter, Demeter, Athena, and Enyo or Bellona—to which there could be no objection *a priori* on etymological principles; for Ὁμολώϊα would be the most probable etymon of Ὁμολώϊος imaginable. But it would be a serious objection to it, that the Ὁμολώϊα in question, as Mr. B. supposes, were a Thessalian festival; and the Bœotians, on that principle, must have borrowed the name of one of their months from a Thessalian institution: which, if we consider the national antipathies of the Greeks, and the frequent wars between the Bœotians and the Thessalians, their nearest and most formidable neighbours, cannot be thought probable. The name of one of the seven gates of Thebes was the Ὁμολωΐδες; which Pausanias[p] and Stephanus Byzantinus[q] derived from Ὁμόλη, the name of a mountain in Thessaly *, in the direction of which they were situated;

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* This mountain is recognised by Euripides,

Καὶ Πηλιάδες θεράπναι
σύγχορτοί θ' Ὁμόλας ἔναυ-
λοι— Hercules Furens, 370.

and by Apollonius Rhodius, i. 594.

Ἠῶθεν δ' Ὁμόλην—

on which the Scholia, Ὁμόλη, ὄρος Θεσσαλίας οὕτω καλούμενον. And by Theocritus, Idyll. vii. 103.

Τόν μοι Πὰν Ὁμόλας ἐρατὸν πέδον ὅς τε λέλογκας,
ἄκλητον τήνοιο φίλας ἐς χεῖρας ἐρείσαις—

on which also the Scholiast: Καὶ Καλλίμαχος·

Πὰν Ὁμαλϊήτης τρύπανον αἰπολικόν.

[p] ix. viii. 3.

[q] Ὁμόλη.

others from Ὁμολωεὺς, the reputed son of Amphion[r], and others from Ὁμολωῒς, one of the daughters of Niobe[s]; but Aristodemus (himself of Thebes[t]), with much greater probability *a priori*, from their proximity to the Ὁμολώϊον, in Thebes itself, which was situated close to that gate.

This testimony proves that there was an Ὁμολώϊον in Thebes also; and if so, that some temple was denoted by this appellation, there can be no doubt. And as to what that might be—Ὁμολώϊος, it appears, was one of the titles of Jupiter in Thebes, and among the Bœotians in general. Ὁμολώϊος Ζεύς· Ἐν Θήβαις καὶ ἐν ἄλλαις πόλεσι Βοιωτικαῖς[x]—Ὁμόλοος Ζεύς· Θήβῃσιν οὕτω προσαγορεύεται ὁ Ζεύς[y]—Καὶ Ζεὺς Ὁμολώϊος τιμᾶται ἐν Βοιωτίᾳ[z]. It is no objection that there was a Ζεὺς Ὁμολώϊος in Thessaly also; if there was one of the same name in Bœotia. The Ὁμολώϊον of Thebes therefore was the ἱερὸν Ζηνὸς Ὁμολωΐου there. It is consequently the most reasonable and consistent explanation of the origin of this name, to suppose that, as the Homoloïan Jupiter gave his name to the Homoloïan gate at Thebes, so he did to the Homoloïan month in the Theban calendar likewise.

And with respect to the meaning of the name itself, as applied first to the Homoloïan Jupiter, and then through him to the Homoloïan gate and the Homoloïan month, the gloss in Suidas and Photius, lately referred to, derives it ultimately from ὅμολον, in the sense of ὁμονοητικὸν and εἰρηνικὸν, and in that sense peculiar to the Æolic dialect, as the month so called was to an Æolic calendar: Ὁμολωΐος Ζεύς. Ἐν Θήβαις, καὶ ἐν ἄλλαις πόλεσι Βοιωτίας, καὶ ἐν Θεσσαλίᾳ. ἀπὸ Ὁμολωΐας προφητίδος τῆς Ἐνυέως· ἣν προφῆτιν εἰς Δελφοὺς πεμφθῆναι, ὡς Ἀριστοφάνης ἐν δευτέρῳ Θηβαϊκῶν. Ἴστρος δὲ ἐν τῇ ιβʹ τῆς Συναγωγῆς, διὰ τὸ παρ' Αἰολεῦσι τὸ ὁμονοητικὸν καὶ εἰρηνικὸν ὅμολον λέγεσθαι[a].

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Ὅμολος δὲ Θετταλίας ὄρος, ὡς Ἔφορος καὶ Ἀριστόδημος ὁ Θηβαῖος, ἐν οἷς ἱστορεῖ περὶ τῆς ἑορτῆς τῶν Ὁμολωΐων· καὶ Πίνδαρος ἐν τοῖς Ὑπορχήμασιν. Strabo, ix. 5. 316 ad princip. calls it Ὁμόλιον.

[r] Scholia ad Phœn. 1119.

[s] Tzetzes ad Lycoph. 520.

[t] Cf. Scholia in Theocrit. Idyll. vii. 103.

[x] Photius. Cf. Suidas, in voce.

[y] Hesychius, in voce.

[z] Steph. Byz. Ὁμόλη.

[a] Suidas, in Ὁμολώϊος Ζεύς: Photius in iisdem.

And that a name ultimately so derived, and expressive of amity and concord, might have been purposely given to this month, appears from the further fact that, if we are right in the position which we have assigned it in the order of the calendar, it must have corresponded to the Attic Boëdromion, and consequently to the month of the mysteries; and through the mysteries to that of the mystical *σπονδαὶ* or *ἐκεχειρία*—which, from the time of Solon at least[b], and by his appointment, if not from an earlier date, and by virtue of a rule and prescription of immemorial observance, had characterised the mystical period. It does not appear that there was any month called *Θεσμοφόριος* in the Bœotian calendar, as there was in many others of the calendars of the Greeks, though Demeter *Θεσμοφόρος* had a temple at Thebes[c]; but the *Θεσμοφόρια* were certainly celebrated at Thebes, and under that name[d], and at a time of the year which must have coincided with the summer, and the place in the summer of the month Boëdromion. It appears too that *Ὁμολωΐα* was one of the titles of *Δημήτηρ* herself at Thebes; both Suidas and Photius subjoining to the passage last quoted, *Ἐστὶ δὲ καὶ Δημήτηρ Ὁμολωΐα ἐν Θήβαις*. And as the *Θεσμοφόρια* and the mysteries were originally absolutely the same, whether the Homoloïan month was so called from the Homoloïan Demeter, or the Homoloïan Demeter from the Homoloïan month, the inference will be the same in either case, that the *Ὁμολώϊα*—in the sense of the mysteries or Thesmophoria—celebrated in honour of the Homoloïan Demeter, must have been celebrated in the Homoloïan month.

x. The name of this month in the Bœotian calendar is still unknown; and all that we can predicate concerning it with certainty is that it must have corresponded to the Attic Pyanepsion, and in the natural year have come next to the autumnal equinox, and in the cycle of natural productions have coincided with the season of vintage. Nor is it improbable that its actual name was *Ἰτώνιος*—a name which, as we hope to see hereafter, occurs in the Thessalian calendar. And as it derived its name in that calendar from the Itonian Athena, in whose honour and in whose temple the principal solemnity of the Bœotian league, the Παμβοιώτια, is said to have been celebrated; the Pambœotian month might have been called the Μὴν Ἰτώνιος, after the Itonian Athena too. If there was a month so called in the Bœotian calendar, it must have come in here.

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[b] Vol. i. page 42 note. cf. supra, 94. xlv.

[c] Pausanias, ix. vi. 2. cf. xvi. 3.

[d] Plutarch, Pelopidas, v. Xenophon, Hellenica, v. ii. 29.

xi. *Δαμάτριος*. The etymon of this name requires no explanation. It must have been derived from *Δαμάτηρ*, the Doric form of *Δημήτηρ*; and as the month itself coincided with seed time in the natural year, it must have taken its name from *Δημήτηρ* as the supposed author of the gift of seed. It was entirely in unison with this origin of the name, and this reference implied by it to the cycle of natural production, that though the *Θεσμοφόρια* among the Bœotians were not celebrated in this month, but as we have seen in Ὁμολώϊος, there was a ceremony even in this month analogous to that of the *νηστεία* in the Attic Pyanepsion[e], in honour of the Ἀχαία—another of the titles of *Δημήτηρ*, but with a special relation to the temporary loss and apparent extinction of the principle of vegetable life, as committed to the ground, before its reappearance in the form of the plant. These things however belong to a different part of our subject; and their proper explanation must be reserved for the present.

xii. Ἀλαλκομένιος—Ἀλαλκομένειος—and Ἀλαλκομένηος—in all which forms this name occurs. In explanation of the name we may observe, first that Ἀθήνη surnamed Ἀλαλκομενηῒς is recognised as an object of worship in Bœotia, even in the time of Homer[f]; secondly, that the Alalcomenean Athena herself, according to the popular belief among the Bœotians, derived her name from an ancient hero called Ἀλαλκομενεύς[g]. And though the tradition of later times invested this Alalcomeneus with a mythological character, and represented him as an *αὐτόχθων*, yet that he was a real person appears from a very remarkable lunar correction of the primitive solar year, attested and commemorated by an equally remarkable institution, which continued in being down to the latest times; of each of which we hope hereafter to give a full account. From either of these then the month Alalcomeneus might have derived its name; either from the Alalcomenean Athena, or from Alalcomeneus, who cuts so conspicuous a figure in primitive Bœotian tradition. And in our opinion it took its name from the latter. And on that supposition we are enabled to explain another fact in the history of this month, its correspondence to Posideon in the Attic calendar; that is, why the name of Alalcomenius in particular should have been given to the last month in the Bœotian calendar, as that of Posideon was to the last in the Attic. Posidon was the impersonation of the watery principle; and this Alalcomeneus appears to have been the type of the same principle among the Bœotians: for in the Philosophumena ascribed to Origen, lately recovered, a fragment of Pindar's (as it is supposed) is quoted, in which this Alalcomeneus is set forth not only as the first man, in the opinion of the Bœotians, but as having some time or other first made his appearance out of the Lake Kephisus, that is, out of the element of water[h]; the first principle of vegetable, and through that of animal, life. The Bœotians therefore might choose to dedicate the twelfth month of their calendar to Alalcomeneus, simply because the Athenians had consecrated the twelfth of theirs to Posidon; and simply because he was just as much the representative and type of the watery principle among them as Posidon among the Athenians.

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[e] Plutarch, Demosthenes, xxx: De Iside et Osir. lxix.

[f] Iliad Δ. 8.

[g] Pausanias, ix. xxxiii. 4. cf. Anecdota Græca Oxon. i. 76. 23. Ἐπιμερισμοί in Il. Δ. 8.

### SECTION X.—*On the verification of the Octaëteric Cycle of the Bœotian Calendar, from B.C.* 567 *to B.C.* 407.

It ought not to be considered an objection to the truth of the account thus given of the origin and constitution of the first lunar correction of the Bœotian calendar, that we have not the means of verifying it by actual dates, in terms of the correction itself, from the beginning of its first period B. C. 567 to its end B. C. 407. This objection is resolvable into the deficiency of Greek history generally, for the whole of the interval in question; and applies no more to this calendar than to the Elean, or to the Spartan, or even to the Attic.

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[h] v. 7. pag. 96, 97. This part of the Fragment in question has been restored as follows:—

Εἴτε Βοιωτοῖσιν Ἀλαλκομενεὺς λίμνας ὑπὲρ Καφισσίδος
πρῶτος ἀνθρώπων ἄνεσχεν,
εἴτε καὶ κ', τ. λ.

It has however been seen that towards the end of the period two very probable proofs of this kind were deducible from contemporary history. The first was the relation of the Bœotian calendar to the Platæan, or (what was then the same thing) the Attic and the Spartan, B. C. 431, at the time of the surprise of Platæa; the date of which in each of these other two calendars appeared to have been the *νουμηνία*[i], and therefore an *ἱερομηνία*, but not in the Bœotian calendar[i]. And the actual Julian date of the day in question having been March 8 at midnight, though it was the first of Elaphebolion in the old Attic calendar of the time being, it was only the *ἕκτη φθίνοντος*, the 26th, of Hermæus in the Bœotian.

The second was the probable relation of the Bœotian calendar of the time being to the Attic, when Demosthenes made his attempt on Siphæ, and Hippocrates his upon Delium, in the 8th year of the war, B. C. 424. The failure of these enterprises was due to a difference of reckoning by the calendar at Siphæ and the calendar at Athens, amounting to *two* days; and two days in excess in one, and two in defect in the other[k]. The comparison of the Bœotian with the Attic calendar for the year in question, Period i. Cycle xvii. 8. of the former, Period i. 7, 8. Cycle i. 7, 8. of the Metonic correction in the latter, critically illustrated and verified this distinction; the Bœotian for the time being having borne date Dec. 25, and the Attic Dec. 23, and every month in the former, from the beginning to the end of the year, having been two days in advance of the corresponding one in the latter.

The confirmation of this first lunar correction of the Bœotians by the date of Platæa, Panemus 27, Sept. 2, B. C. 479, need not be again adverted to: though that alone is competent to authenticate the whole of the first period of its proper cycle. Besides this, the fact alluded to by Plutarch, in his Life of Camillus[l], the victory of the Bœotians over the Thessalians at Keressus, belongs to this period also; though the reference to it is too general and indefinite, to enable us to judge of its time or its circumstances. All that can be inferred from the allusion to it is that, if its date in the calendar was the same as that of Leuctra, it must have been Hippodromius 5; and if it happened just 100 years before the battle of Leuctra, i. e. before B. C. 371, it must have happened Hippodromius 5, Cycle xiii. 1. of the first Octaëteric Period, which that year fell on July 13, B. C. 471. The date of Leuctra, Hippodromius 5, Period i. 37. of the Metonic Bœotian correction, as we shall see by and by, was July 6, B. C. 371. But the event itself happened more than 100 years before Leuctra; and therefore the above can be only an approximation to its true date.

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[i] Vide vol. i. page 174 sqq.

[k] Vide supra, 12. iv.

[l] Supra page 289.

## SECTION XI.—*On the Metonic Correction of the Bœotian Octaëteris, and its date.*

The Octaëteric correction of the old equable calendar having been adopted by the Bœotians, B. C. 567, the next question is, Whether it was ever superseded among them by the Metonic? and if so, When? and what was the time and date of the proper Bœotian Metonic correction?

In answer to this question, we may observe, i. That it is not probable *a priori* that, having once adopted the Octaëteric correction and the Octaëteric cycle, the Bœotians would lay it aside for any other, any more than the Athenians or the Lacedemonians, under the same circumstances, before it had run through the first of its proper periods at least: i. e. if they adopted this correction in B. C. 567, it is not probable they would make any change in it, much less substitute any other for it, before B. C. 407. ii. It could not be assumed with certainty *a priori* that a change would be made in it, or any other form of the lunar calendar substituted for it, even at the end of the first of its proper periods; for instances are not wanting of the retention of the Octaëteric cycle for a second, and even a third, Period of 160 years; and that too at a time when the principle of the Metonic correction had long been before the world, and was every where well understood, and the Metonic cycle in repeated instances had been adopted by those who were before using the Octaëteric*. On no question of this kind consequently could it be taken for granted *a priori* that the old Octaëteric cycle, wheresoever previously in use, later than the first announcement of the Metonic correction, would be laid aside for that even at the expiration of one of its proper periods; and whether it was so, or not, in a particular instance, must be determined by the special reasons of the case; in other words, by matters of fact. iii. Whether at the end of the first period of their proper cycle, the Bœotians might have determined to retain it for another, or to lay it aside for the Metonic; yet still, for the reason explained in a former part of these Dissertations[m], a correction of the epoch of the cycle, and a correction amounting to a day, would be necessary to prepare it either for the decursus of a second period, or for passing into the Metonic correction: and assuming (as we may reasonably do) that this correction would be made at the end of the first period, B. C. 407—it follows that, whether with a view to the decursus of a second period of the old Octaëteric cycle, or to its transition at this point of time into the Metonic, the Julian epoch of the Bœotian calendar, which B. C. 567 had been Jan. 13, B. C. 407 must have become, and from that

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* We must suppose that cases of this kind existed even in Plutarch's time, and were known to him; otherwise he could have had no foundation for the remark which he made in that passage of his life of Aristides,

which we produced at the beginning of this Dissertation, about the difference of styles in different calendars even in his own time. This difference must have been such at least that what was the first of the month in some calendars, was the sixth in others; and that was a kind and degree of difference which, though easy to have been generated, and easy to be explained, in any given calendar regulated by the Octaëteric cycle, compared with another regulated by the Metonic, could not have been exemplified in any two calendars of Plutarch's time, both regulated by the Metonic cycle alike, and both subject, or both not subject, to the Callippic correction of that cycle alike; though it might have been exemplified in one calendar of that kind subjected to the Callippic correction from the first, compared with another which was not. And though there were certainly calendars in his time which had been Metonic from the first, without having been subjected as yet to the Callippic correction, (as for instance, the Attic and the Elean or Olympic); these calendars, it may fairly be presumed, must have constituted the least numerous family of their proper class: but Plutarch speaks of the differences and distinctions in question as characteristic of calendars in his time *generally:* from which we may infer, that though many must have been Metonic, many also, and probably more, must have been Octaëteric.

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[m] Vol. i. page 39. cf. 488.

time forward have continued, Jan. 14. iv. Facts are actually upon record, later than B. C. 407, from which it is to be inferred that though the Bœotians must have corrected the epoch of their calendar, in the manner and to the extent which we have supposed, in this year, B. C. 407, they could not have retained their old cycle for another of its proper periods, but must have substituted a Metonic one in its stead *. These facts we shall proceed to adduce.

### i. On the date of the Battle of Leuctra in the Bœotian Calendar, B. C. 371.

The date of this battle, it is on every account to be presumed, would be recorded first and properly in the Bœotian calendar: and in any other of the same or of subsequent times only as transferred to it from the Bœotian. Plutarch asserts that the anniversary of the battle was commemorated at Thebes even in his own time[n]: *Τὴν μὲν γὰρ ἐν Μαραθῶνι μάχην ἄχρι νῦν Ἀθηναῖοι, καὶ τὴν ἐν Λεύκτροις Θηβαῖοι, καὶ νὴ Δία ἡμεῖς τὴν Δαϊφάντου περὶ Ὑάμπολιν ἑορτάζομεν*[o]. In the Life of Camillus[p], this original date of the victory is clearly specified as the 5th of Hippodromius; and that *this* was some day in the Attic month Hecatombæon of the time being is clearly intimated also: and that it was in fact the fifth of Hecatombæon, in the Attic calendar, as it was the fifth of Hippodromius in the Bœotian, though not expressly stated here, is so in the Life of Agesilaus[q]: *Τῇ γὰρ τετράδι ἐπὶ δέκα τοῦ Σκιροφοριῶνος μηνὸς ἐποιήσαντο τὰς σπονδὰς ἐν Λακεδαίμονι, τῇ δὲ πέμπτῃ τοῦ Ἑκατομβαιῶνος ἡττήθησαν ἐν Λεύκτροις, ἡμερῶν εἴκοσι διαγενομένων.* It follows that there was no difference in the year of Leuctra, except in the names of the months, between the style of the Bœotian and that of the Attic calendar; the fifth of Hippodromius in the former was nominally the same with the fifth of Hecatombæon in the latter. The inference which we draw from this fact is, that if the Attic calendar was regulated at this time by the Metonic cycle, the Bœotian must have been so too. It was not possible on any other supposition that the coincidence in question could have held good.

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* See this Metonic calendar of the Bœotians, vol. iii. Appendix, Table xi.

[n] Cf. also Diodor. Sic. xv. 53: the Panegyris celebrated at Lebadea, ever after, in honour of Jupiter Basileus.

[o] Ὅτι οὐδὲ ζῆν ἡδέως κ', τ. λ. xviii. The speaker in this part of the dialogue was a Phocian, called Theon: cf. xx. Daïphantus was a Phocian, and this victory of his was won by the Phocians under him, over the Thessalians. Of the *Λείψανα* of Plutarch, xxxiii. B. p. 393. *Δαϊφάντου Βίος.*

[p] xix.

[q] xxviii.

For let it be assumed, *argumenti gratia*, that B. C. 371, thirty-six years after the beginning of the second Period of their old octaëteris, the Bœotian calendar was still regulated by that cycle—while the Attic, ever since B. C. 432, had been regulated by the Metonic. The first of Hippodromius, in the former, on that supposition, Period ii. 37, Cycle v. 5, must have been falling June 25; the first of Hecatombæon in the latter, Period i. 62, Cycle iv. 5, July 3: eight days later. There must have been consequently eight days' difference between the fifth of Hippodromius that year and the fifth of Hecatombæon; and if the date of Leuctra was truly the fifth of Hippodromius in the Bœotian calendar, it must have been the 27th of Skirrhophorion in the Attic; if it was truly the fifth of Hecatombæon in the Attic, it must have been the 13th of Hippodromius in the Bœotian.

There is no alternative left then except to conclude that the Bœotian calendar at this time was regulated by the Metonic correction as much as the Attic, and had been so ever since the beginning of the second of the proper periods of its old octaëteris. And though in strictness the 5th of Hippodromius even by the Metonic calendar of the Bœotians this year was July 6, one day earlier than the 5th of Hecatombæon by the Attic, July 7, that was entirely κατὰ συμβεβηκός; and ultimately due to the fact that the date of Leuctra in the first Callippic Period of the Attic Metonic correction was the 62d year, by which time it had already accumulated a day in excess: in the first year of that of the Bœotian it was only the 37th, when the excess was still less than a day.

ii. On the date of the invasion of Laconia by Epaminondas and Pelopidas, and of the enlargement of the term of their Bœotarchy, B. C. 369.

The next fact, from which we may infer the nature of the cycle by which the Bœotian calendar for the time being must have been regulated, is the following. It is known that two years after the battle of Leuctra, in the archontic year of Lysistratus, B. C. 369, Epaminondas, and the rest of the Bœotarchs*, made an expedition into Laconia; followed by the resettlement of Messene, after lying desolate nearly 300 years. This invasion, as Plutarch informs us, took place in the last month of their official year; and as they were detained by it, from first to last, upwards of *four* months, they became liable thereby to the penalties denounced by the laws against the retention of the office of Bœotarch after the expiration of its legitimate period. And, as he also tells us, a prosecution was actually instituted against them as soon as they returned; from the consequences of which they were saved only by the bold and manly defence adopted by Epaminondas. The fact is related by all the historians of the time, and is frequently referred to in after times; but the most circumstantial account of it is given by Plutarch in the Life of Pelopidas: from which we shall extract as much as may suffice for our present purpose.

Εἰς μέντοι Πελοπόννησον ἀμφότεροι Βοιωταρχοῦντες ἐνέβαλον, καὶ τῶν ἐθνῶν τὰ πλεῖστα προσήγοντο, Λακεδαιμονίων ἀποστήσαντες Ἦλιν, Ἄργος, Ἀρκαδίαν σύμπασαν, αὐτῆς τῆς Λακωνικῆς τὰ πλεῖστα. καίτοι χειμῶνος μὲν ἦσαν αἱ περὶ τροπὰς ἀκμαί· μηνὸς δὲ τοῦ τελευταίου φθίνοντος ὀλίγαι περιῆσαν ἡμέραι, καὶ τὴν ἀρχὴν ἔδει παραλαμβάνειν ἑτέρους εὐθὺς ἱσταμένου τοῦ πρώτου μηνὸς, ἢ θνήσκειν τοὺς μὴ παραδιδόντας. οἱ δ' ἄλλοι Βοιωτάρχαι, καὶ τὸν νόμον δεδιότες τοῦτον καὶ τὸν χειμῶνα φεύγοντες, ἀπάγειν ἔσπευδον ἐπ' οἶκον τὸ στράτευμα[r]—Θανάτου γὰρ ἀμφότεροι δίκας ἔφυγον ἐπανελθόντες, ὅτι τοῦ νόμου κελεύοντος ἐν τῷ πρώτῳ μηνὶ παραδοῦναι τὴν Βοιωταρχίαν ἑτέροις, ὃν Βουκάτιον ὀνομάζουσι, τέτταρας ὅλους προσεπεβάλοντο μῆνας, ἐν οἷς τὰ περὶ Μεσσήνην καὶ Ἀρκαδίαν καὶ τὴν Λακωνικὴν διῴκησαν[s].

The most important of these circumstances is that this invasion took place μηνὸς τοῦ τελευταίου φθίνοντος on the one hand, and at midwinter, αἱ περὶ τροπὰς ἀκμαὶ, on the other: for these two criterions laid together imply that the article of midwinter, the winter solstice, that year must have fallen out critically on some one of the last ten days (the last decad) of the last month of the Bœotian year, which we know was Alalcomenius. The year having been B. C. 369, the mean winter solstice that year, for these meridians, fell out Dec. 26, the true December 25: consequently Dec. 26 or Dec. 25 this year must have fallen on some day in the last decad of the Bœotian Alalcomenius.

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* Diodor. xv. 52, 53, in the year of Leuctra their number was seven.

[r] Cap. xxiv.

[s] Ib. xxv.

Let us then, first of all, suppose that the old octaëteric cycle was still in use. In that case the year, B. C. 369, would have corresponded to Period ii. 39, Cycle v. 7, when Bucatius 1 must have borne date Jan. 7, and therefore Alalcomenius 1 November 26; and the first day of the last decad of that month (Alalcomenius 21) on December 16: ten days at least too early for the winter solstice the same year.

Let us next suppose that the calendar was now regulated by the Metonic cycle; the epoch of which Period i. 1, Cycle i. 1, was Jan. 14, B. C. 407. On that supposition the year must have answered to Period i. 39, Cycle iii. 1, when Bucatius 1 would bear date Jan. 15, and Alalcomenius 1, December 5, and (the month being plenus) Alalcomenius 21, December 25; on the very day of the winter solstice according to the Parapegma of Meton, and at this time the date of the true winter solstice itself. And the last decad of this month extending from December 25 inclusive to January 3 inclusive, if the invasion actually took place about the middle of this decad, (as seems to be implied by Plutarch's note of the time, viz. when a *few* days only of that decad were still left.) nothing could more justly and more truly have been said of the article of the invasion, in the natural tropical year, than that it was *about*, but not *at*, *close to*, but not actually *on*, the very day of the winter solstice—*αἱ περὶ τροπὰς ἀκμαί.*

### iii. On the beginning of the Bœotian year, B. C. 379–378.

These two matters of fact may suffice for the proof of our proposition, that the Metonic correction must have begun to be applied to the Bœotian calendar, B. C. 407. and that its proper Julian epoch was Jan. 14, B. C. 407. For the remainder of our observations we will take this position for granted; and proceed merely to confirm or illustrate it by other proofs of like kind, whether of earlier or of later date.

One of these is the circumstances, which have been left on record, of the recovery of Thebes, B. C. 379–378[t].

It may be collected from Plutarch, De Genio Socratis, that the attempt, which was followed by this recovery, was made either in the last or in the first month of the official year; for in his account of its circumstances[v], he alludes to *Καβείριχος*, as *ὁ κυάμιστος ἄρχων*—the last elected archon—and to the spear which he was carrying as the insigne of his office at the time; and it appears further from his Pelopidas[x], that Pelopidas was elected Bœotarch the day after the night of the attempt. It appears too[y], the night of the attempt was a dark night; and that is an argument either of the end or of the beginning of the lunar month. It appears too that when the exiles were coming to Thebes, on this enterprize, and crossing Mount Kithæron, they encountered stormy weather and cold by the way[z]: and at the time of the execution of the attempt the same affections of the air were still continuing: *Ὀψὲ δ᾽ ἤδη τότε ψύχος ἐπέτεινε πνεύματος γενομένου, καὶ διὰ τοῦτο τῶν πολλῶν τάχιον εἰς τὰς οἰκίας ἀνακεχωρηκότων*[a]—*Καὶ παρέσχεν αὐτοῖς ὁ χειμὼν τὰ πρόσωπα συγκεκαλυμμένοις ἀδεῶς διελθεῖν τὴν πόλιν*[a]—*Ἦν δέ τι πνεῦμα καὶ νιφετὸς, ἀρχομένου τρέπεσθαι τοῦ ἀέρος, καὶ μᾶλλον ἔλαθον, καταπεφευγότων ἤδη τὸν χειμῶνα τῶν πλείστων εἰς τὰς οἰκίας*[b]—*Ὥρα μὲν οὖν ἦν καθ᾽ ἣν ἄνθρωποι μάλιστα περὶ δεῖπνόν εἰσι· τὸ δὲ πνεῦμα μᾶλλον ἐπιτεῖνον ἤδη νιφετὸν ὑπεκίνει ψεκάδι λεπτῇ μεμιγμένον· ὥστε πολλὴν ἐρημίαν εἶναι διὰ τῶν στενωπῶν διεξιοῦσιν*[c]. These are circumstances which characterise the time as the end of the natural year, and towards the winter solstice. Xenophon confirms the inference, by speaking of the mission of Cleombrotus to Thebes, as soon as the attempt was known of at Sparta[d], *Μάλα χειμῶνος ὄντος*—in the very depth of winter: attested too by the storm which he encountered on his return, within 16 or 17 days afterwards[e].

It follows that the Bœotian year at this time was both beginning and ending about the middle of winter. Let us see how this conclusion will agree with the testimony of the

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[t] Hellenica, v. iv. 1–9. 14. Diodorus, xv. 25–27.

[v] Cap. xxx.

[x] Cap. xii. xiii.

[y] De Genio Socratis, ii.

[z] Ibid. xxv.

[a] Ibid.

[b] Pelopidas, ix.

[c] De Genio, xxix.

[d] Hellenica, v. iv. 14.

[e] v. iv. 15–18.

Metonic type of this calendar, in which B. C. 379 corresponded to Period i. 29, Cycle ii. 10. Now, the first of Bucatius by that calendar, Period i. 29, would fall January 5: and therefore the 1st of Alalcomenius, Nov. 25: and the first of Bucatius again, Period i. 30, Cycle ii. 11, Dec. 25—on the very day of the winter solstice. The attempt of Pelopidas and his associates (48 in number[f]) was probably made on the very last night of this year, the night of Alalcomenius 30 ineunte, Dec. 23, about 6 P. M.: and if that was the case, we should thereby ascertain the date of the Ἀφροδίσια in the Bœotian calendar; for the Polemarch was keeping that feast, ἐπ' ἐξόδῳ τῆς ἀρχῆς[g], on the night of the attempt. And this is one among the other proofs of the rule of the noctidiurnal reckoning among the Greeks[h]; according to which the night preceded the day, and the beginning of feasts in particular was reckoned from the evening.

Moreover, it appears from the Agesilaus of Plutarch[i] that Pelopidas and Mello, elected to the office of Bœotarchs as soon as the Thebans recovered their independence, were still serving that office[k] at the time of the attempt of Sphodrias on the Piræus, which we determined to Boëdromion 19, Oct. 4 this year[l]. It follows that the official year of the Thebans not having yet come to an end by Oct. 4 this year, and yet having begun in December the year before, must have been at this time much the same as the natural year itself, reckoned from the winter solstice to the winter solstice; as it would be by our calendar, reckoned from Bucatius 1 to Bucatius 1 *.

* The Bœotarchies of Pelopidas are to be dated from this first, which entered, or may be assumed to have done so, Dec. 25, B. C. 379. He died in his 13th, according to Plutarch (Vita xxxiv. xxxi.): and that is determined by the solar eclipse the same year (supra, p. 85), to B. C. 364. The first of Bucatius that year fell Jan. 19. Diodorus Sic. in-

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[f] De Genio, xxvi. Pelopidas, ix. viii. and xii.

[g] Hellenica, v. iv. 4. Cf. Polyænus, ii. iv. Pelopidas, 3: Corn. Nepos, Pelopidas, ii. iii.

[h] Vide our Fasti Catholici, i. 179, 180, note. We learn also from Plutarch, De Genio, xxxiii. the date of the Ἡράκλεια, referred to in this note, at Thebes; viz. some time either late in the last month of the Bœotian calendar, or early in the first.

[i] xxiv.

[k] Cf. the Pelopidas, xiii. xiv. Here however the names of the Bœotarchs are Pelopidas and Gorgidas.

[l] Supra, p. 81.

### iv. On the beginning of the Bœotian official year, B. C. 197.

The beginning of the official year at Thebes is illustrated by the account which both Polybius[m] and Livy[n] have given of the dispute with the Romans, in which the Thebans were involved soon after the end of the war with Philip; and of the fate of the Bœotian demagogue Brachyllas: and from this it is seen to have been still the same at that time, as it had been long before.

It appears from Polybius[m] that this affair began in the winter. Titus Flamininus at least was in winter quarters at Elatea in Phocis, when the Bœotians sent an embassy to him to obtain his permission to ransom such of their own citizens, as had been made captives while serving in the army of Philip: *Ταχὺ δὲ πάντων ἀνακομισθέντων*, he continues, *ἐκ τῆς Μακεδονίας, ἐν οἷς ἦν καὶ Βραχύλλης**, *τοῦτον μὲν εὐθέως Βοιωτάρχην κατέστησαν*: from which it follows that this return of the captives must have been just before the usual time of the election of Bœotarchs; and therefore if the return fell out in the winter, the usual time of that election must have done the same.

An account follows in Polybius of the scheme which the enemies of Brachyllas, soon after this election, concerted for getting rid of him; though this fragment of his history

deed (xv. 81. 80. 78.) gives us to understand that he served this office every year of his life, from B. C. 379–378 to his death; in which case he must have died in his *fifteenth* Bœotarchy, not in his *thirteenth.* But Plutarch tells us (xxiii.) he was not Bœotarch in the year of Leuctra, B. C. 371, though Epaminondas was: and we may presume he could not have been serving that office in the year when he went on the embassy to Persia, (Vita, xxx. cf. the F. Hell. of Mr. Clinton, B. C 367.) or in the year when he was imprisoned in Thessaly by Alexander of Pheræ. (Vita, xxvii.) His thirteenth Bœotarchy therefore, though reckoned from B. C. 379–378 as his first, could not have been earlier than Jan. 19, B. C. 364—in which year, sometime after July 13, he died.

* Brachyllas is mentioned by Polybius, xvii. 1, 2, as one of those who were with Philip previously in the autumn of B. C. 198. He was appointed *Ἐπιστάτης* of Thebes, by Antigonus, after Sellasia, B. C. 222: xx. 5, 12. cf. § 5.

[m] xviii. 26. § 1–4. 5–13.

[n] xxxiii. 27.

breaks off before it arrives at its execution [o]. Livy however ascertains the time to which these events in general belonged; viz. the consular year of Lucius Furius Purpureo and M. Claudius Marcellus [p], which entered on the Ides of Martius, U. C. 558, Dec. 5, B. C. 197—though the Kalends of Januarius the same year fell on September 26 [q]. The date of these events then in general was some time between Sept. 26 and Dec. 5, B. C. 197, when Titus might actually have been in winter quarters at Elatea; the war with Philip having been terminated by the battle of Kynoskephalæ, about July 23 the same year [r].

Livy proceeds [s]: Hæc per hiemem ferme acta. hibernabat eo tempore Athenis Quinctius &c. The context shews that this was before the restoration of the captives, the Theban comitia, and the election of Brachyllas; and he might have been at Athens at the beginning of winter, reckoned from the autumnal equinox or soon after, this year, and yet in winter-quarters at Elatea, in October or November, when the Thebans, according to Polybius, must actually have applied to him about the ransom of their own citizens. The history of the death of Brachyllas follows [s]: the Roman army was still at that time in winter quarters [t]: and just after the close of the winter the Legati from Rome arrived, Quorum ex consilio pax data Philippo [u]. These Legati had not been despatched before the new consuls came into office; as both Polybius [v] and Livy [x] agree: that is, not before Dec. 5, B. C. 197, at least: under which circumstances they could not have actually arrived before the spring of B. C. 196 [y]—and Brachyllas, when they arrived, was dead.

This case proves very clearly that the Bœotian year was still beginning in the winter, B. C. 197–196. This year answered to Period iii. 60: and the first of Bucatius that year would fall Dec. 24, B. C. 197, the comitial month (Alalcomenius), Nov. 25: and Titus might have been at Elatea at that time, yet at Athens in September or October.

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[o] Cf. xx. 7, 3–5.

[p] xxxiii. 24.

[q] Cf. our Origines Kal. Italicæ, iii. page 84 and note: iv. lxix.

[r] Vide our Origines Kal. Italicæ, iii. 84 *n*.

[s] xxxiii. 27.

[t] Cap. 29. From the allusion in cap. 28. just before to the *molles et effeminati*, in company with whom Brachyllas was celebrating some feast at the time of his death, we consider it extremely probable that the actual date of that event was the Theban Dionysia; which, as we shall see hereafter, began on the 7th of the second month in their calendar—the 7th of Hermæus; and that B. C. 196 would be Jan. 28.

[u] xxxiii. 30.

[v] xviii. 25, 5.

[x] xxxiii. 24, 25.

[y] Cf. Polyb. xviii. 27. and Livy, xxxiii. 30.

## SECTION XII.—*On the confirmation of the Metonic Correction of the Bœotian Calendar, furnished by the Thebaïs of Statius.*

### i. On the date of the Thebaïs.

The Thebaïs of Statius had been already finished, and his next epic poem, the Achilleïs, had been already begun, by the 17th consulate of Domitian; as appears from the Sylva addressed to Victorius Marcellus—

> Nunc si forte meis quæ sint exordia Musis
> Scire petis—jam Sidonios emensa labores
> Thebaïs optato collegit carbasa portu, &c[z].—
> Nunc vacuos crines alio subit infula nexu:
> Troja quidem magnusque mihi tentatur Achilles[a].

And the exordium of the Achilleïs itself implies that it was not undertaken before the Thebaïs had been completed—

> Neque enim Aonium nemus advena pulso,
> Nec mea nunc primis albescunt tempora vittis.
> Scit Dircæus ager: meque inter prisca parentum
> Nomina cumque suo memorant Amphione Thebæ[b].

The fourth book of the Sylvæ, which contains these allusions, opens with the 17th consulate of Domitian. Primo autem septimum decimum Germanici nostri consulatum adoravi[c]—that is, with the kalends of January, U. C. 848, A. D. 95.

> Læta bis octonis accedit purpura fastis
> Cæsaris, insignemque aperit Germanicus annum,
> Atque oritur cum sole novo[d]—

though when the fourth poem in this Sylva (that which has the allusion to the Achilleïs as just beginning) was composed, Statius was at Cumæ, in the neighbourhood of mount Vesuvius—

> Hæc ego Chalcidicis ad te Marcelle sonabam
> Litoribus, fractas ubi Vesbius erigit iras;
> Æmula Trinacriis volvens incendia flammis[e]—

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[z] Sylv. iv. iv. 87. cf. vii. 23.

[a] Ibid. 93.

[b] i. 10.

[c] Præfatio, Sylv. iv. i. xvii consulatus Imperatoris Aug. Germanici. Of this title of Germanicus, cf. Sylv. i. i. 5: iv. 4: iii. iii. 165: iv. 49: iv. i. 40–43: also our Origines Kal. Italicæ, iv. page 22. *n.*

[d] Sylv. iv. i. 1. cf. ver. 8–10, 11–14, 15–44.

[e] iv. iv. 78.

and in the month of July; as plainly appears from other parts of it[f].

The Thebaïs then had been finished before the kalends of January, U.C. 848, A.D. 95: and, it seems, it had previously occupied the author *twelve* years—

> O mihi bissenos multum vigilata per annos
> Thebaï[g]—

from which we may infer that it was most probably begun A.D. 82: and since it was dedicated to Domitian[h], and, as we may collect[i], at the beginning of his reign, this conclusion is confirmed by the date of that beginning, Sept. 13, A.D. 81.

The Achilleïs, projected after the completion of the Thebaïs, and begun in the month of July, A.D. 95, must have been begun in the 14th of Domitian; to whom this poem also is dedicated. Two books only remain of it: and we must suppose it was left in that state by the death of the author. The date of his death is not known. The fourth book of the Sylvæ however, which opens with the kalends of January A.D. 95, extends down to the Saturnalia the same year[k]. He did not therefore die A.D. 95. It appears also from the fifth book (which could not have been published earlier than A.D. 96), that he survived the death of his father three months in that year at least[l]: and there is another poem in the same book, the Epicedium in filium, (an adopted son, the child of one of his slaves,) written on the 30th day after his death[m]. We may conclude then that he probably lived to witness the death of Domitian, Sept. 18 Roman, A.D. 96—though he might have died soon after, in the first year of Nerva, A.D. 96 or 97 *.

* There are many allusions to the Thebaïs in the different Sylvæ of Statius, which illustrate its progress at various points of the interval taken up by it. Quid enim oportet, he observes on one occasion[1], hujus quoque authoritate editionis onerari, quod adhuc pro Thebaïde mea quamvis me reliquerit timeo—the meaning of which is that, though as a whole it had not yet been published, parts of it had got abroad. Juvenal alludes to Statius' practice of reading parts of it—

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[f] iv. iv. 12–45.

[g] Thebaïs, xii. 811. cf. Sylv. iv. vii. 25.

[h] i. 17–33.

[i] Ib. 22, 23.

[k] iv. i. 1. and iv. ix. 1. cf. also iv. iv. the date of which, as we have seen, was the month of July the same year.

[l] v. iii. 29–32. Epicedium in Patrem.

[m] v. v. 24, 25.

[1] Sylv. i. Præfatio.

Curritur ad vocem jucundam et carmen amicæ
Thebaïdos, lætam fecit cum Statius urbem,
Promisitque diem [2]:

not indeed when Juvenal was writing his own Satires, if Statius died about A.D. 96; but still, as something which he might himself have witnessed in his lifetime [3]—for he must have been a contemporary of Statius—long before A.D. 119.

The Thebaïs had been laid by for a time when the poem next after that which is entitled Soteria pro Rutilio Gallico [4] was in hand—

Paulum arma nocentia Thebæ
Ponite [5].

This Gallicus was urbis præfectus at the time [6]; and in that capacity he too is mentioned by Juvenal [7]:

Hæc quota pars scelerum quæ custos Gallicus urbis
Usque a Lucifero donec lux occidat audit?

When the Propempticon Metio Celeri was written it had reached that stage when nothing was to be done except to bury the fallen chiefs.

Inque vicem medios narrabimus annos
Tu &c.
Ast ego devictis dederim quæ justa Pelasgis,
Quæve laboratas claudat mihi pagina Thebas [8].

And in the Sylva addressed to Claudia his wife, (which makes part of this same book,) he alludes to the length of time for which he had been engaged upon it—

Longi tu sola laboris
Conscia, cumque tuis crevit mea Thebaïs annis [9].

It is again alluded to, and as a finished work [10], and the Achilleïs as just begun [11], when he was at Baiæ, in the spring or summer of some year. The Achilleïs was going on when he wrote the fifth book of the Sylvæ [12]; and both that and the Thebaïs are alluded to, the latter as completed, the former as in progress, in the same Sylva [13].

But in order to understand the times of these different allusions, it is of course necessary to know the dates of the various Sylvæ, in which they occur; and though those might be readily determined in a general manner, it is not so easy to fix them with certainty in particular instances. One topic however is frequently alluded to in them, which may furnish a clue to their chronology.

In the Sylva, entitled, Villa Surrentina Pollii Felicis [14], the games at Naples are mentioned as just over [15]—

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[2] vii. 82.

[3] See our Origines Kal. Italicæ, ii. 633.

[4] i. iv.

[5] i. v. 8.

[6] i. iv. 10–15.

[7] xiii. 157.

[8] Sylv. iii. ii. 135 sqq.

[9] iii. v. 35.

[10] Sylv. iv. vii. 8, 9: 25–28.

[11] 17–24.

[12] v. ii. 162, 163.

[13] v. v. 35–37. cf. v. iii. 233.

[14] Sylv. ii. ii.

[15] Verse 6. There are allusions to these games also, Sylv. v. iii. Epicedium in Patrem, 104. 112–115. 134–137–144. 225; but none any where, from which it might be inferred that they had recently been in course, so plainly as from this.

Huc me post patrii lætum quinquennia lustri
Cum stadio jam pigra quies, canusque sederet
Pulvis, ad Ambracias conversa gymnade frondes *.

These games at Naples are mentioned by Strabo[16]: *Μετὰ δὲ Δικαιαρχίαν ἐστὶ Νεάπολις Κυμαίων· ὕστερον δὲ καὶ Χαλκιδεῖς ἐπῴκησαν . . . ὥστε καὶ Νεάπολις ἐκλήθη διὰ τοῦτο. ὅπου δείκνυται μνῆμα τῶν Σειρήνων μιᾶς Παρθενόπης, καὶ ἀγὼν συντελεῖται γυμνικὸς κατὰ μαντείαν* . . . the title of its chief magistrate being *Δήμαρχος*—*Πλεῖστα δ' ἴχνη τῆς Ἑλληνικῆς ἀγωγῆς ἐνταῦθα σώζεται, γυμνάσιά τε καὶ ἐφηβεῖα, καὶ φρατρίαι καὶ ὀνόματα Ἑλληνικὰ καίπερ ὄντων Ῥωμαίων. νυνὶ δὲ πεντετηρικὸς ἱερὸς ἀγὼν συντελεῖται παρ' αὐτοῖς, μουσικός τε καὶ γυμνικὸς, ἐπὶ πλείους ἡμέρας, ἐνάμιλλος τοῖς ἐπιφανεστάτοις τῶν κατὰ τὴν Ἑλλάδα*—Lucian speaks of the addition of the Pantomime to them before his own time[17]: *Ἐῶ λέγειν ὅτι πόλις ἐν Ἰταλίᾳ τοῦ Χαλκιδικοῦ γένους ἡ ἀρίστη καὶ τοῦτο ὥσπερ τι κόσμημα τῷ παρ' αὐτοῖς ἀγῶνι προστέθεικεν.* They were still continuing in the time of Philostratus the younger[18]: *Ἦν μὲν ὁ παρὰ τοῖς Νεαπολίταις ἀγών. ἡ δὲ πόλις ἐν Ἰταλίᾳ ᾤκισται, γένος Ἕλληνες καὶ ἀστυκοί κ`, τ. λ.* But the most classical testimony, in illustration of their rule, occurs in Dio Chrysostom, in connection with the history of Melancomas, an athlete of his own time[19]; from which it is clearly to be collected that their stated season was the hottest period of the natural year, June or July[20].

Suetonius tells us[21], that many of the provinces of the empire instituted quinquennial games in honour of Augustus; and he implies that some of the cities of Italy also did the same: Quædam Italiæ civitates diem quo primum ad se venisset initium anni fecerunt. provinciarum pleræque, super templa et aras, ludos quoque quinquennales pæne oppidatim constituerunt. That this at least was some time or other done at Neapolis in particular, we learn from his account of the circumstances which preceded the death of Augustus[22]: Mox Neapolim trajecit, i. e. from Capreæ[23], quamquam et tum infirmis intestinis morbo variante: tamen et quinquennale certamen gymnicum honori suo institutum perspectavit. The same thing is attested by Velleius Paterculus: who also mentions this visit to Naples, and with this object in view, when Augustus was accompanying Tiberius, (on his route to Illyricum[24],) as far as Beneventum[25]—Simulque interfuturus athletarum certaminis ludicro, quod ejus honori sacratum a Neapolitanis est, processit in Campaniam[26]. It appears that he left Rome on this occasion, on or about the xv kal. Junias, May 18 Roman[27]; and an Alexandrian ship, laden with corn, was passing by Puteoli, while he was there[28]; which determines the time of his presence at Puteoli, in all probability, to the month of June.

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* This allusion is to be understood of the Actian games: and we may collect from it that the Actian games were in course in the same year as the Neapolitan, only later in the summer than they. In fact, the Neapolitan games in question being celebrated in July or August, these Actian games, as we collect from Ausonius, (Mosella, x. 334. ver. 208–214,) were celebrated in September, no doubt on the historical or traditionary date of the battle of Actium, in commemoration of which they were instituted, Sept. 2. Roman. (see our Origines Kal. Italicæ, ii. 324, 325: iv. 107. note.) Of these Ἄκτια cf. Harpocration, Ἄκτια: Virgil, Æn. iii. 280: Strabo, vi. 6. 121 a: Euseb. Chron. Arm. Lat. ad Ann. 1989: Thes. Tempor. Ol. 187. 4: Panegyrici Vett. xi. Mamertini Gratiarum Actio Pro Consulatu Juliano Augusto, A. D. 362, cap. ix. 2, 3.

Dio, li. 1, (cf. 4.) tells us the Actia were instituted B. C. 31, U. C. 723; though first celebrated only B. C. 28, U. C. 726: liii. 1: and that they were Penteteric. Cf Strabo, vi. 6. loc. cit. If we may assume that their epoch was really B. C. 31, then they would be in course 32 years after exactly, A. D. 2: and if the Neapolitan games were instituted *this* year, (as we shall see by and by,) the cycle of both games would ever after coincide; the one in July or August, the other in September, of the same year.

[16] v. 4. 398 b.

[17] ii. 286. De Saltatione 32.

[18] Icones, i. Exordium, 723 C.

[19] Cf. Anecdota Græca Paris. ii. 154, 155.

[20] Cf. xxviii. 532 sqq: xxix. 536 sqq.: xxxi. 576. 15: xxxii. 663. 40.

[21] Aug. lix. 3, 4.

Now the year being unquestionably A. D. 14, (the year of the death of Augustus,) it follows from that fact, that the Neapolitan games were in course A. D. 14: and if they were quinquennial they would be again in course, 52 years afterwards, A. D. 66: and it appears from Suetonius' life of Nero, that they were so in that year: for, speaking of his visit to Greece, he tells us, while he was still on the way, that year, Prodiit Neapoli primum[29]; ac ne concusso quidem repente motu terræ theatro ante cantare destitit quam inchoatum absolveret *νόμον*. And these games were going on now at Naples, about the usual time of the arrival of the cornships from Egypt, June or July; as appears from what is next mentioned[30]: Captus autem modulatis Alexandrinorum laudationibus, qui de novo commeatu Neapolim confluxerant, plures Alexandria evocavit. The year however of the actual institution of these games is ascertained by a marble, which Corsini has quoted[31], dated v idus Martias, Severo et Herenniano consulibus, U. C. 924, A. D. 171: from which it appears the 43d Olympia, as they were here styled, at Naples coincided with that year; and consequently, if they were celebrated at midsummer, must have been in course at midsummer A. D. 170: which gives the date of the first, midsummer, A. D. 2, and the date of the fourth, (that which preceded the death of Augustus,) A. D. 14, and that of the seventeenth, at which Nero appeared in public, A. D. 66.

Now it appears from the testimony of the Sylvæ themselves[32], that these Neapolitan games and the Ludi Capitolini (instituted by Domitian[33], A. D. 86,) were in course the same year, only the latter before the former. We may infer then that the Sylva, which contains the first allusion to these games[34], was written most probably A. D. 90: and that which contains the next[35], most probably A. D. 94; both these being Capitoline years, and Olympic at Naples also.

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[22] Aug. xcix. 5.

[23] Cap. xcviii. 2. cf. xcii. 5: Dio, lii. 43. (1. 41.)

[24] Cf. Suetonius, xcvii. 5, 6: Tiberius, xxi. 1, 2: cf. also Tacitus, Ann. i. 5.

[25] ii. 123.

[26] Cf. Dio lvi. 29. U. C. 767, A. D. 14: Ἐξωρμήθη τε ἐς τὴν Καμπανίαν ὁ Αὔγουστος, καὶ τὸν ἀγῶνα τὸν ἐν τῇ Νεαπόλει διαθεὶς ἔπειτα ἐν Νώλῃ μετήλλαξεν. Cf. with this part of Dio, Suetonius, Aug. xcvii. 4, the letter C, and the 100 days. According to Suetonius, Aug. xcviii. 1, he became ill, ex profluvie alvi, soon after he left Rome: cf. xcix. 5. But he was not obliged to take to his bed, until after he parted with Tiberius at Beneventum, and had got as far as Nola on his return: Aug. xcix. 6: Vell. Pat. ii. 123.

[27] Suetonius, Caius, viii.

[28] Aug. xcviii. 3. cf. Nero, xx. 5.

[29] Vita, xx. 3. cf. xxv. 1.

[30] xx. 5.

[31] Dissertat. Agonist. iv. 14. p. 102–110.

[32] Sylv. iii. v. 92. (77–92.)

The first book of Sylvæ occupies a year—In fine sunt kalendæ Decembres quibus utique creditur[36] &c. It appears in fact[37], that Domitian this year celebrated an extraordinary Saturnalia, on the first of December, instead of the seventeenth[38]. And it is observable that as it began in the morning, and lasted until the evening, so on the evening of this day there was no moon.

> Vixdum cærula nox subibat orbem,
> Descendit media nitens arena
> Densas flammeus orbis inter umbras,
> Vincens Gnosiacæ facem coronæ.
> Collucet polus ignibus nihilque
> Obscuræ patitur licere nocti[39].

We should infer from this fact that the date of this Sylva was probably A. D. 88; in which year, as our Lunar Tables shew, the moon was new December 2, and the next day, December 3, as our Roman Calendar shews[40], was the Julian date of the kalends of December, U. C. 841, A. D. 88.

The second book is to be dated A. D. 90; in which year the xxiiid Neapolitan Olympia would be in course. It ends with the *Γενεθλιακὸν* of the poet Lucan[41]: that is, later than Lucan's birthday (iii Non. Nov.[42]) at least.

The third book was later than midsummer in some year: for one of the poems in it[43] celebrates the restoration of the Games of Hercules[44], after an interruption of a year, devoted to the enlargement of his temple, begun on the ides of August[45], the year before, continued through the winter ensuing[46], yet completed at last within the year[47]. Consequently, if the date of the next book was A. D. 95, that of this could not have been earlier than A. D. 94: in which, from the allusion to the Neapolitan Games[48], (the xxivth from the epoch) we have seen reason to date it.

The Propempticon Metio Celeri, one of the poems in this book[49], having been written when he was setting out to go to Palestine (to the government of which he had just been appointed[50]) and that by way of Egypt, implies

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[33] Censorinus, De Die, xviii. cf. Corp. Inscript. ii. 466. No. 2682.

[34] ii. ii. 6.

[35] iii. v.

[36] Præfatio, p. 6.

[37] Cf. i. vi. Kalendæ Decembres Saturnales.

[38] Cf. 1–8, &c. 81–84.

[39] i. vi. 85.

[40] Origines Kal. Italicæ, iv. xcii.

[41] Præfat. p. 76: cf. ii. vii. 1. 20. 30–32. 62. 120–123.

[42] Vita by the old commentator: cf. the Vita by Suetonius, also Martial, vii. 21, 22, 23.

[43] iii. i. Hercules Surrentinus, Pollii Felicis.

[44] 1–3: 43–45: 139.

[45] 52–60.

[46] 120: 125–129.

[47] 135: 1, 2: 17–19.

[48] iii. v. 77–92.

[49] iii. ii.

[50] Cf. 1–20: 21–49: 101–105: 131–143.

It thus appears that Statius was a contemporary of Plutarch's; though he must have died many years before him, if Plutarch was still living in the reign of Hadrian. If then the Bœotian year was still lunar in the time of Plutarch, it must have been equally so in that of Statius. The date, to which we have seen reason to determine the beginning of the Thebaïs, A. D. 82, in the Metonic calendar of the Bœotians, would answer to Period vii. 33. in which the first of Bucatius would fall on January 20. It is not an improbable conjecture that, if Statius was projecting a poem on the expedition of the Seven against Thebes, he would think of consulting the Bœotian calendar, and of founding the chronology of his poem upon it: assuming only (as he was at liberty to do, and as many others of the ancients under similar circumstances are seen to have done) that, whatsoever was the nature of the Bœotian calendar in his own time, it had always been the same, even from so remote an epoch as that of the expedition of the Seven. It is worth while at least to put this conjecture to the test, by an actual examination whether any notices occur in the Thebaïs, from which the particular calendar,

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that it was written soon after the Etesian winds set in[51]: and that is confirmed by the fact that he was proposing to go in a ship of Alexandria, which had lately arrived at Puteoli, or Dikæarchia, with corn of that year's growth, from Egypt itself[52].

The summer, as we have seen, is mentioned in the fourth Sylva[53]; i. e. a time not earlier than July *. The winter is alluded to in the vith poem of this book[54], and it ends with the Saturnalia[55].

On this principle, the fifth Sylva could not have been published before A. D. 96 at the earliest. There is no allusion in it to Domitian, or to Nerva, or to anything but the domestic circumstances of the author himself, part of it being occupied by the Epicedion in Patrem[56], and part by that in Puerum suum[57]. Cf. Mr. Clinton's Fasti Romani, ad ann. U. C. 846, A. D. 93. col. 4. whose dates of the first four Sylvæ agree with the above. The date of the fifth is not assigned by him.

[51] Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, iv. 232.

[52] iii. ii. 21–49.

[53] iv. iv. 12–45.

[54] Hercules Epitrapezios Nonii Vindicis, 12–18.

[55] iv. ix.

[56] v. iii.

[57] v. v.

* This may be inferred from the allusion to the Law-vacation, 39–45. as going on at the same time. That this began in July see A. Gellius, ix. 15: xviii. 5: Seneca, Ludus De Morte Claudii Cæsaris, vii. 4. Opp. iv. 390: Sueton. Claudius, xiv. 4: Dio, lx. 4: Plinius Jun. Epp. viii. 21.

recognised by it, can be divined; and how far this may turn out to be the same with the Bœotian of the author's own time, or different from it.

## ii. On the Chronology of the Thebaïs, and the Calendar to which it is accommodated.

The argument of this poem, like that of the Phœnissæ of Euripides, presupposes an agreement between the two sons of Œdipus, Eteocles and Polynikes; by virtue of which each was to reign for a year[n], the other in the meanwhile going into exile, at a distance from Thebes and the seat of the kingdom: and like the Phœnissæ also, it supposes the first turn of this kind to have fallen to the lot of Eteocles[o]. And though it does not distinctly appear from it whether it opens at the beginning or at the end of this year, the course and succession of events, from the commencement of the poem to the end, place it beyond a question, that the proper train of its circumstances must have taken its rise critically from the conclusion of this compact, concerning the alternate succession to, and enjoyment of, the kingdom: the breach of which and its consequences constitute the action of the poem itself. It is necessary only to observe, that part of this year had already elapsed before Polynikes is brought to Mykenæ or Argos; i. e. Polynikes' part of the engagement, by which he was bound to spend this year at a distance from Thebes, had already begun, and was now in a great measure over, before the point of time where the poem itself takes up the succession of events—

> Interea patriis olim vagus exsul ab oris
> Œdipodionides furto deserta pererrat
> Aoniæ; jam jamque animis male debita regna
> Concipit, et longum signis cunctantibus annum
> Stare gemit[q]—

which plainly enough implies that his year of retirement had already begun, and in part been already transacted; but that more of it still remained. It was necessary however that he should be brought to Argos as soon as possible, in order to prepare the way for the sequel of events; and to his becoming first of all the son in law of Adrastus. He comes therefore from Aonia, or the land of Bœotia[q], to the Isthmus[r], and from thence, after one day's journey, to Argos; and he arrives at Argos at night: which would be only consistent with the distance from the Isthmus to Argos, supposed to have been travelled previously[s]—*ἄνδρι εὐζώνῳ*, at least.

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[n] Cf. Diodor. Sic. iv. 65: Hyginus, Fabb. lxvii. lxviii.

[o] i. 138: 164, 165.

[q] i. 312.

This night however is properly the beginning of the action, the epoch at least of its chronology; and some critical circumstances are specified concerning it, which we must take strictly into account in forming an idea of its date. i. A moon was visible at the time—

Jamque per emeriti surgens confinia Phœbi
Titanis late mundo subvecta silenti
Rorifera gelidum tenuaverat aëra biga[t].

The coldness of the air, here alluded to along with the appearance of the moon, is an argument of the winter season. This moon itself becomes visible,

per emeriti surgens confinia Phœbi.

The *emeritus Phœbus*, there can be no doubt, was a description of the setting sun; for at sunset only could the sun himself be said to be *emeritus*, that is, to have completed his usual daily task. The *confinia Phœbi emeriti* consequently is that part of the heavens which is next to the region of sunset; that is, the western half of the hemisphere, the part between the meridian and the horizon on the west. It follows that by the moon's rising in this quarter, its first becoming visible between the meridian and the western horizon must have been meant; from which state of the case the inference is necessary, that the day of this arrival at Argos, the day on which the moon first became visible between the meridian and the point of sunset, must have been the luna *sexta*, or *septima*, and in any calendar which was true to the moon, the 6th or the 7th of the calendar month. For at that period of the lunar month only is the moon, at sunset, ordinarily just past the meridian, and visible somewhere between the meridian and the horizon in the west.

ii. The appearance of this moon, and at this age of the moon, is succeeded by darkness[t], and a storm[t], the characteristics of which are wind and rain and cold[v]—

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[q] i. 312. [r] 324–335. [s] 324–389. [t] 336.

> Densior a terris et nulli pervia flammæ
> Subtexit nox atra polos; jam claustra rigentis
> Æoliæ percussa sonant, venturaque rauco
> Ore minatur hiems[x]—

and this is a description which could apply only to a winter's night: and in a subsequent reference to it it is plainly designated as a winter's night[y]. It is clear then that the arrival of Polynikes at Argos is supposed to have taken place in the winter, and on some night in the winter when the moon was six or seven days old; and therefore on the night of the sixth or the seventh of some lunar month. And if he arrived soon after the beginning of his year of exile, that year too must have begun in the winter*; and the sixth or the seventh of the lunar month, on which he arrived, must have been the sixth or the seventh of some month very near the beginning of the year.

iii. It confirms these conclusions, i. That the year itself at this time is supposed to have been lunar in general[z]. ii. That the night of the arrival is supposed to have been a stated feast-day of Apollo[a]. The seventh day of the lunar month among the Greeks was sacred to Apollo; and the Greek day being reckoned from the night, this feast-day of Apollo, as the seventh of the month, would begin on the evening of the sixth. We have therefore, in this last coinci-

* Cf. Seneca Trag. Phœnissæ, 370, where Jocasta is speaking of Polynikes—

> Bruma ter posuit nives,
> Et tertia jam falce decubuit Ceres,
> Ut exsul errat gnatus et patria caret.

And this too recognises the beginning of the year in the winter.

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[t] i. 336.

[v] 345–348.

[x] i. 345–389. cf. 346–352: 401–407: 432–456: 498. 520.

[y] iv. 84, 85. It is observable that though he arrives at Argos at night (after sunset at least) he finds Adrastus' supper only just over, and not too late even for himself and Tydeus, i. 512–720. Supper time, among the Greeks in Statius' time, was never much later than sunset. Cf. our Dissertations on the Principles and Arrangement of an Harmony, Diss. xxxviii. iii. 67, 68. also our Fasti Catholici, i. 190, 191. Cf. other observable circumstances in the account of this night, in which Adrastus bestows his two daughters on Polynikes and Tydeus respectively: 505—508. (cf. 498.)

[z] i. 575–578.

[a] i. 552–668.

dence, a clear designation of the epoch of the chronology of the Poem, dated from the arrival of Polynikes at Argos; the seventh of the lunar month, reckoned according to the Greek rule from sunset on the sixth, when the moon was six days old complete.

iv. This conclusion, respecting the epoch of the Poem, thus deducible from the first allusion to the moon which occurs in it, is confirmed by another still more significant, which we meet with in the account of the mission of Hermes in quest of the Ghost of Laïus. For he was sent on this errand the very night of the arrival of Polynikes[b]: and he executed it the same night[c]: and while he was still on his way the moon is again alluded to—

> Inde per Arcturum mediæque silentia Lunæ
> Arva super populosque meat. Sopor obvius illi
> Noctis agebat equos[d].

Both these allusions are significant; both the allusion to Arcturus and that to the moon. Hermes had Arcturus on one hand, and the moon on the other, as he was flying on this errand. The moon was half illuminated at the time*, that is, it was at the first or the second dichotomy; and if it could not have been at the second, it must have been at the first. Now, if the time of this appearance was the night after the arrival of Polynikes at Argos, it is impossible it could have been the *second* dichotomy; it must therefore

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* It would be a great mistake to understand the *mediæ silentia lunæ* in this passage, of the full moon. It is meant of the lunar dichotomy, or that state of the lunar phasis when the orb of the moon is equally divided between the illuminated and the unilluminated part: i. e. the moon seems to be cut in two. There are two such phases in the course of every synodic lunation—one at the end of the first quarter, the other at the end of the third; one on the 8th lunar day, the other on the 23rd. On this subject, cf. our Origines Kalendariæ Italicæ, i. p. 233 sqq, note; and to the illustrations there adduced, add the following:

> *Ἰσά τ᾽ ἐπ᾽ ἀλλήλοισι κέρα ἀνέτελλε καρήνου,*
> *ἄντυγος ἡμιτόμου κεραῆς ἅτε κύκλα σελήνης.*
> Moschus, Eidyll. ii. 87. De Raptu Europæ.

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> *Οἶά τε λάμπει*
> *μεσσοφανὴς νέφος ὑγρὸν ἀνασχίζουσα σελήνη.*
> Nonnus, Dionysiaca, x. 186.

[b] i. 292. [c] ii. 1 sqq. [d] ii. 58.

have been the *first*. The moon, being at the first dichotomy, was consequently six or seven days old; exactly as we have already concluded it was, on the day of the arrival of Polynikes at Argos. The moon, again, being seven days old at this time, and consequently in the west—if Hermes was flying at the same time between Arcturus and the moon, Arcturus must have been in the east; and hence the first probable discovery of the *Julian* as well as of the *lunar* epoch of the Poem—the former, the Julian epoch of the acronychal rising of Arcturus, the latter, the luna septima: both, in the assumed year in which the action of the poem begins, meeting together and coinciding on one and the same day.

The acronychal rising of Arcturus, from the time of Hesiod downwards, as we have seen [e], was most commonly dated sixty days after the winter solstice. The winter solstice in the Julian calendar was originally attached to the viii kal. Januarias, Dec. 25 Roman, Dec. 23 Julian, B. C. 45 [f]; and in the time of Statius its Julian date was one day earlier, Dec. 22, instead of Dec. 23, and its Roman date on the same principle must have been Dec. 24 Roman, instead of Dec. 25. There is no reason why we may not suppose the true date of each of the cardinal ingresses well known to all the better informed and more intelligent of the Romans, in Statius' time. But it is also to be observed that all through the reign of Domitian, which includes the twelve years during which Statius was engaged on the Thebaïs, the proportion of the Roman to the Julian kalends was such, that the *first* of every Roman month fell on the *third* of the corresponding Julian. Consequently the winter solstitial date in the time of Statius, Dec. 24 Roman, fell on Dec. 26 Julian. Reckon on then 60 days from Dec. 25 at 6 P. M. and you come to Feb. 23 at 6 P. M.: and Dec. 25 at 6 P. M. being assumed as the date of the winter solstice for the time being, Feb. 23 at 6 P. M. would be the corresponding date of the acronychal rising of Arcturus. It follows, that in the year of the opening of the action of the Thebaïs, if the seventh of the lunar month coincided with the acronychal rising of Arcturus, it coincided with Feb. 23 or Feb. 24.

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[e] Vol. i. page 274.

[f] Cf. our Origines Kal. Italicæ, iv. 50, 51.

Let it therefore be supposed that, as A. D. 82 was the year in which Statius began the composition of this poem, he took this first and most cardinal date (the date of this lunar seventh, on which, as we have seen, the action begins) from the Bœotian calendar of the time being. A. D. 82, reduced to the calendar of the time, corresponded to Period vii. 33; in which the first of Bucatius was falling Jan. 19 at 6 P. M. exemptile 21: and therefore the first of Hermæus, Feb. 17 at 6 P. M.: and consequently the seventh of Hermæus, Feb. 23 at 6 P. M.; that is, Feb. 23 at 18 h. to Feb. 24 at 18 h. If so, on the date of the acronychal rising of Arcturus; 60 days and nights complete, according to the reckoning of Hesiod, from the date of the winter solstice in the Roman calendar of the time being, Dec. 25 at 18 h. to Dec. 26 at 18 h.: as well as on the seventh of the moon or month.

On this principle, the proper chronological epoch of the Thebaïs was the sixth of the second month of the Bœotian calendar, for the time being, the sixth of Hermæus, A. D. 82: and the second day of its proper action was the seventh of that month, dated according to the Greek rule from sunset the evening before. And this too admits of being confirmed by the following coincidence; viz. That on the night of this day, the night after the sixth, and before the seventh, of this same month, reckoned according to the Julian rule, when Hermes and the Shade of Laïus arrived at Thebes[g], the Dionysia were going on there: i. e. they had begun at the beginning of this day, reckoned from the night, and were still going on through the night:

> Et tunc forte dies noto signata Tonantis
> Fulmine, prærupti quum te, tener Evie, partus
> Transmisere patri. Tyriis ea causa colonis
> Insomnem ludo certatim educere noctem
> Suaserat. effusi passim per tecta, per agros,
> Serta inter vacuosque mero crateras anhelum
> Proflabant sub luce deum[h].

The date of the Dionysia at Thebes on this principle was the seventh of Hermæus; and Hermæus being the second month in the Bœotian calendar, it corresponded originally to Anthesterion, the second in the Attic calendar: and the difference of epochs from the first having been five days, the seventh of Hermæus corresponded to the twelfth of Anthesterion. And it is a great confirmation of our conclusion respecting the date of the Theban Dionysia, and through that, of the true lunar and Julian date of the epoch of the Thebaïs, that the 12th of the Attic Anthesterion, as we are told by Thucydides[i], was the date of the oldest Dionysia, the *Διονύσια ἐν Λίμναις**.

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[g] ii. 89, 94. 102. 120.

[h] ii. 71.

This second day of the poem, as such, the day after the arrival of Polynikes and Tydeus, (on this principle Hermæus 7, Feb. 24,) is mentioned in due course[k]. Their nuptials, and those of the two daughters of Adrastus, begin this day, and are celebrated for twelve days after[l]: Hermæus 7–19, Feb. 24–March 8: and then, it would appear to be implied, Polynikes began to bethink himself of his right to the kingdom—

> Postquam regales epulas et gaudia vulgi
> Bisseni clusere dies, Ismenius heros
> Respicere ad Thebas[m]—

And Tydeus is sent to demand the resignation of the throne by Eteocles in his behalf; which would consequently seem to have been as early as the 19th of Hermæus, March 8: only fourteen days after their arrival at Mykenæ, Feb. 23, Hermæus 6. It may be shewn however that, unless it can be considered probable the poem could have contradicted all its former allusions and assumptions by its subsequent ones, the necessity of the case requires that the action must have slept, from the time of the consummation of these marriage festivities, the last particular circumstantially related, down to that of this mission of Tydeus to Thebes—for an interval of little less than a year.

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* Hermæus, like Anthesterion, was the first of the spring months also: and that the Dionysia at Thebes were a spring festival will be proved hereafter from other testimonies, and might be inferred from the following passage of Nonnus, with reference to their first celebration—the first Dionysia of their kind:

> *Ἤδη δ' ἐπταπόροιο δι' ἄστεος ἵπτατο φήμη,*
> *ὄργια κηρύσσουσα χοροπλεκέος Διονύσου.*
> *οὐδέ τις ἦν ἀχόρευτος ἀνὰ πτόλιν· ἀγρονόμων δὲ*
> *εἰαρινοῖς πετάλοισιν ἐμιτρώθησαν ἀγυιαί.*
> xliv. 123.

And they appear to be so described also in the following of Seneca Tragœdus, Hercules Œtæus, 594—if at least we understand the allusion to the mysteries, which likewise occurs in it, of the lesser, celebrated in Anthesterion:

> Nos Cadmeis orgia ferre
> Tecum solitæ condita cistis,
> Cum jam pulso sidere brumæ
> Tertia soles evocat æstas,
> Et spiciferæ concessa Deæ
> Attica mystas claudit Eleusin.

[i] ii. 15. [k] ii. 134. 141–145: 148–155, [l] 173–308. [m] ii. 306.

For i. This embassy to Thebes, and the transactions arising out of it there, being over[n], we have mention of the next morning[o], of the return of Tydeus by sunset to Argos[p], of the night after that[pp]; and then of the seventh morning—

> Septima jam nitidum terris Aurora deisque
> Purpureo vehit ore diem[q]—

on which day the two soothsayers, Amphiaraus and Melampus, ascend to the top of mount Aphesas, and hold their consultation there apart—

> Huc gemini vates, sanctam canentis olivæ
> Fronde comam et niveis ornati tempora vittis,
> Evadunt pariter, madidos ubi lucidus agros
> Ortus et algentes laxavit sole pruinas[r].

And this describes a morning of the early spring: especially as the zephyr or west wind was blowing at the time:

> Planctumque imitantibus alis
> Exagitant Zephyros[s].

Consequently soon after the stated date of the Flatus Favonii, early in the Julian February. On the 12th or 13th day after this vision, the 19th or 20th since the return of Tydeus, Amphiaraus delivers the prophecy of the fate of the expedition—

> Bisseno premit ora die[t]—

and the night after this also is mentioned[v], and the next day[x].

If then all the events from the first arrival of Polynikes and Tydeus down to this point of time[y] were strictly consecutive, they must have been comprehended in 14 + 20 or 34 days. Yet Thessander, the offspring of the marriage of Polynikes and Argeia, had been already born[z] *: so that, instead of 34 days merely, there could not have been less than ten months, between one of these extremes and the other. We have no alternative therefore except to suppose that the mission of Tydeus to Thebes was the first event of the *second* year, and no part of the first at all; much less of this early period of the first: and that conclusion having been established, we may pass to the consideration of the circumstances of the mission.

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[n] ii. 386—end of the book. [o] iii. 31–38. [p] 324–406. [pp] 407–416. [q] 440. [r] 466. [s] 514. [t] iii. 574. cf. 466. [v] 677. cf. 683–685. [x] 720. [y] i. 1—iii. 677.

i. In the first place, Eteocles' turn to reign is considered to be now over, and Polynikes' to be come, at the time of his arrival at Thebes—

> Jura ferus populo trans legem ac tempora regni
> Jam fratris de parte dabat[a]—

consequently it could not have been earlier than the first month of the second year.

ii. Again, the course of the past year is so described in the speech of Tydeus, as to imply that it had both begun and ended in the winter—

> Astriferum velox jam circulus orbem
> Torsit, et amissæ redierunt montibus umbræ,
> Ex quo frater inops ignota per oppida tristes
> Exsul agit casus: et te jam tempus aperto
> Sub Jove ferre dies, terrenaque frigora membris
> Ducere[b].

The ecliptic is meant by the circle alluded to; and the sun's course from a certain point in this circle to the same again had now been completed: and that point must have been the winter solstice, if while the sun was receding from it the mountains had lost their shadows, and while it was returning to it had recovered them. The point therefore was that at which the sun was lowest, and the shadows longest; viz. that of the middle of winter.

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* Eustathius, ad Il. E. 412. 566. 1: Adrastus had three daughters, Argeia, Deïpyle, Ægialea. Argeia was married to Polynikes, Deïpyle to Tydeus, Ægialea some time or other to Diomed, but not on this occasion, when Diomed himself was as yet unborn. Schol. ad Phœn. 135: Ἀργεία δὲ ἐλέγετο γυνὴ Πολυνείκους, ἀφ' ἧς Θέρσανδρος· Δηϊπύλη δὲ ἡ τοῦ Τυδέως, ἀφ' ἧς Διομήδης. cf. ad 137. 411.—Schol. ad Il. Δ. 376: De Adrasto: Καὶ δίδωσι Τυδεῖ μὲν Δηϊπύλην Ἀργείαν δὲ Πολυνείκει. Cf. Apollod. Bibl. i. viii. 5: iii. vi. 1. p. 9, 10: Diodor. iv. 65: Hygin. Fabb. lxix. Adrastus. Theocritus, Idyll. xvii. 53, supposes Argeia married to Tydeus, and the mother of Diomed. Of Thersandrus as the offspring of this marriage of Polynikes and Argeia, and his descendants, see the scholia on Pindar, ad Olymp. ii. 76. 80. 82.

[z] iii. 678–685. [a] ii. 386. cf. 387, 388. 394. 407. 466. [b] ii. 400.

iii. An ambush was laid by Eteocles. to intercept Tydeus on his return, after sunset, i. e. at night[c]; which he discovers by the light of the moon—

Scuta virum galeasque videt rutilare comantes,
Qua laxant rami nemus, adversaque sub umbra
Flammeus æratis lunæ tremor errat in armis[d].

If so, the moon was at the full on the night of this return: and though that would have been inconsistent with the allusions to the moon, the year before, at the opening of the poem, there is no reason why it might not have been true at this time the next year. This second year in the Bœotian calendar would be Period vii. 34, and the second month that year Hermæus 1, Feb. 8, ex. 9: and the date of the *πανσέληνον*, the 15th of this month, would be Feb. 21.

iv. While this attack upon Tydeus is going on, Eteocles himself is described as passing a long and restless night—

At non Aoniæ moderator perfidus aulæ,
Nocte sub ancipiti quamvis humentibus astris
Longus ad auroram superet labor, otia somni
Accipit[e]—

that is, it was still the time of the year when the nights were longer than the days; and that also would be true of the night of Feb. 21.

v. Assuming the return of Tydeus to Argos on the 19th of Hermæus, Feb. 25, (the distance from Thebes to Argos being 70 miles direct,) then, on the *seventh* day afterwards, Hermæus 25, March 3, we should have the consultation of the two seers on the mountain; and on the 13th day after that, March 15, the 7th of Prostaterius, on the day sacred to Apollo itself, and the most likely *a priori* of all to have been the date of such an oracle, we should have the prediction of Amphiaraus relating to the fate of the expedition.

Lastly, even after the consent of Adrastus to the expedition has been gained, (20 days at least after the return of

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[c] ii. 482–488. 523–528. 661, 662: iii. 63.

[d] iii. 530.

[e] iii. 1. cf. the rest of the description.

Tydeus[f],) still the remainder of this second year also must be supposed to have been taken up with the preparations for it: so that the action properly so called is suspended for another year. Consequently its actual commencement at last could not have been dated earlier than the third year from the opening of the poem: and *in* that it *is* dated—

> Tertius horrentem Zephyris laxaverat annum
> Phœbus, et angustum cogebat limite verno
> Longius ire diem, quum fracta impulsaque fatis
> Consilia, et tandem miseris data copia belli[g].

Shortly after which—

> Dicta dies aderat: cadit ingens rite Tonanti
> Gradivoque pecus[h]—

And the expedition both begins and ends in *this* year; and, (as we shall have occasion to shew at a future period of our Work, and in illustration of the rule of the Nemean games,) in *one* month, of this year—all that is occupied by it from first to last. The above note of time however very clearly implies that the epoch of each of these years was the Zephyri Flatus, the earliest point of spring: and that is an argument that the action must also have been dated in the second month of the Bœotian calendar, in which this natural phenomenon commonly fell. It is observable also that the Dionysia (in course in the first year) were again in course in this third year[i]; and so they would be, being trieteric, i.e. celebrated every two years complete: and they were going on at this time too on a *dark* night[k], yet in the spring[l].

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[f] iii. 677–722.
[g] iv. 1.
[h] ver. 13.
[i] iv. 377–405.
[k] iv. 372, 373.
[l] iv. 452.

# DISSERTATION VI.

## *On the third Type of the Hellenic Octaëteris.*

## CHAPTER I.

### *On the Lunar Correction of the Primitive Solar Calendar at Sikyon.*

### SECTION I.—*Third Type of the Hellenic Octaëteris in general; and the Calendars reducible under it.*

The next Type of an Octaëteric Correction, derived from the pre-existing solar year agreeably to the same analogy and under the same circumstances as the first or the second, must have borne date on the first of the equable Thoth, Æra Cyclica 3465; and the first of Thoth that year on the first day of the lunar month, reckoned from the change of the moon; and both on the seventh of the Julian January, B. C. 542. And if any such Correction actually came into being at this time, its Julian Type ever after must have been the following.

*Third Type of the Hellenic Octaëteris, Cycle* i. *Epoch, Jan.* 7, *B. C.* 542 *.

| B. C. | | Cycle. | Midn. | |
|---|---|---|---|---|
| | 542. | i. | January | 7. |
| 542. | *541. | ii. | December | 27. |
| 541. | 540. | *iii. | December | 15. |
| | 539. | iv. | January | 3. |
| 539. | 538. | *v. | December | 23. |
| | *537. | vi. | January | 11. |
| 537. | 536. | vii. | December | 30. |
| 536. | 535. | *viii. | December | 19. |

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* Cf. Vol. iii. Appendix, Table iii.

With respect then to the further question, Whether this Type ever had an actual existence, and if so, What are the calendars, and Where to be found, reducible under it?—we may begin with observing, i. That the Greeks of the age of Solon, the contemporaries of the original correction, must have been too widely dispersed, too remote from each other, too isolated and independent in their relations of every kind whether political or private, to allow us to suppose that, on a question involving the abandonment of the oldest and most firmly-established of the rules and customs of public or private life, they either did or could have acted in concert. It is not therefore surprising that with respect to a change of this kind, on which there must have been such an opposition of feelings and opinions, only a comparatively small part of the Hellenic community in general, distinct from the Athenians in particular, is seen at first, from the evidence of the fact, to have fallen in with the views of Solon, and to have introduced the same correction of the Primitive calendar, and at the same time, within their respective jurisdictions, which he was establishing at Athens.

ii. As those however among his contemporaries, who were thus acting in concert with him, and taking the initiative in this proceeding, were the Athenians, the Spartans, and the Eleans, (if no more,) in the mother country, and the Ionic Greeks abroad; it was *a priori* to be expected that, whatsoever prejudices against an innovation of this kind might once have existed among the Greeks, yet the example having been set by the most influential members of the Hellenic family at home and abroad, in the course of time it would be found to have had its effect on the rest of the Greeks; and ultimately to have led to the same change every where else.

iii. The nature of the Primitive solar year, and its relation to the lunar, being such that, if the change of the moveable calendar into a fixed lunar one was to be effected without an abrupt and violent transition, those, who had let slip the *first* opportunity of bringing it to pass in that manner, would not have a second in less than *twenty-five* years—and those, who might have failed to take advantage of a *second* would not have a *third* in less than fifty; it is not only conceivable as a possible contingency, but under the circumstances of the case it was antecedently likely to be matter of fact, that between the introduction of the first lunar correction by Solon, and the adoption of the same kind of correction among the rest of the Greeks, there might be *de facto* as much as fifty years' interval. And fifty years' interval, every one must allow, would be competent to do much towards changing men's feelings and opinions insensibly even to themselves; by accustoming them to the change, by divesting it of the character of novelty, by giving a practical proof of the success of the experiment, and of the superior advantage of a fixed calendar over a shifting and moveable one, by the growing conviction of the desirableness of uniformity in the reckoning of time, by the ease with which the change of style could be carried into effect; and above all, as the Olympic calendar and the Panathenaic, and probably more of a religious character, were already regulated by the new style, by enlisting the religious sympathies of the Greeks in its favour, and reconciling their minds to the idea of transferring the same reckoning to the details of public and private life, which had already been applied to the ceremonies of religion, and the celebration of the national solemnities.

iv. The adoption of the lunar correction in the first instance, by any of the Greeks except the Athenians, for ought which we know to the contrary, might have been due to the influence of Solon with integral national divisions of his contemporaries as well as with the Athenians, or to the authority of personal friends of his own among those other communities; but its adoption by the Bœotians in the next instance, some years after the death of Solon, could have been due to nothing but the merits of the correction itself, and the gradual effect of those motives to which we have just adverted. And motives of that kind which had influenced one large and integral division of the Hellenic community, within 25 years after the first lunar correction, to follow the example which had thus been set, would be likely to influence still more, at a still later period.

v. It is consequently not a little calculated to confirm this reasoning, respecting the course which a process like this, of the correction of the Primitive calendar among the Greeks, was likely to take, and the motives and causes to which it is ultimately to be attributed, that just at this point of time, that is, B. C. 542, (the epoch of the third correction of the Primitive solar calendar, according to the same analogy and under the same circumstances, as either of the other two,) traces begin to be discovered of the existence and use of an Octaëteric correction, altogether the same in principle with that of this epoch in particular, yet so generally and so simultaneously among the Greeks not of the mother country alone, but wheresoever they were settled and living in the ancient world, that, if any one type of this description deserves to be called the Hellenic *κατ' ἐξοχὴν*, it is this. And that fact having been established on its proper evidence, it necessarily leads to the following inference, That this one Type in particular must have been adopted by the Greeks at this point of time, if not every where and without exception, yet very generally and simultaneously, in very different parts of the world.

vi. It is no objection to the truth of this fact, nor to the inference deducible from it, that the number of calendars which are recoverable at present, and must have belonged to this Type, is comparatively small. There is good reason to believe that many more must once have existed; as many more are still discoverable, than can now be restored to their original integrity. The observable circumstance with respect to the calendars of this class is, that they occur in all parts of the ancient world, not only those which were nearest to the birthplace of the lunar correction, but those which were most remote from it; which cannot be affirmed of the calendars of any other Type: proving consequently that the correction, which came into being at the epoch of this Type, must have been much more generally and simultaneously adopted by the Greeks than any other.

vii. The calendars, reducible to this class, and recoverable at present, of which an account may be expected in the course of this work, are the following: the calendar of Platæa, the calendar of Delphi, the calendar of Argos, the calendar of Corinth, the calendar of Rhodes, the calendar of Sikyon, the calendar of Syracuse, the calendar of Gela, the calendar of Agrigentum, and some others: and though these, as we have already observed, taken together, could have comprised only a very small part of those of their own class which probably once existed, yet so far as concerns the reality of the Type itself, to which as a class they are referrible in common, any one of them would have sufficed for the purpose of proof and illustration. A single example of an actual calendar of antiquity is as competent to authenticate its proper Type, and to place the fact of its actual existence and use out of question, as a thousand.

viii. The plan of the present work, according to which it is proposed to treat of the history of the Greek calendar before and after the time of Solon respectively, in two distinct Parts, compels us to reserve the consideration of the first five calendars in this list, for the second Part of this work, with the subject of which each of them is connected in a manner peculiar to itself; the calendar of Platæa through the Dædala of Hellenic antiquity, the calendar of Delphi through the Pythia, the calendar of Argos through the Nemea, the calendar of Corinth through the Isthmia, and the calendar of Rhodes through the Haleia.

ix. The calendars consequently of which we propose to treat in the present Dissertation are the remainder of those which appear in the above list. And though it is indifferent to the argument, and to the end proposed by treating of them, in what order they may be considered, we shall begin with the calendar of Sikyon; as representing not only (as it did at first) the calendar of an individual city, but after a time that of a society or confederacy of cities, known by the name of the Achæan League*.

## SECTION II.—*On the date of the Liberation of Sikyon by Aratus.*

There is indeed only one date extant at present in terms of this calendar; but even that one is so peculiar, and so strikingly confirmed by circumstantial evidence of a very critical kind, as to leave no doubt of its truth, nor consequently of the nature of the calendar from which it was derived.

This date is that of the liberation of Sikyon by Aratus.

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* Cf. Polybius, ii. xxxvii. 7–11.

The circumstances of this incident have been related by Plutarch in the Vita Arati; no doubt from the *Ὑπομνήματα* or commentaries of Aratus himself: for besides being the principal agent in this and similar transactions, which make a figure in the Greek history of this period, Aratus left an account of them in writing, which was taken up and continued by the more general history of Polybius[m]. It is necessary to begin with considering these circumstances as minutely as possible, in order to derive from their testimony a just and consistent idea of the nature and state of the calendar for the time being.

### SECTION III.—*On the circumstances of the Liberation.*

Aratus then, at twenty years of age, according to Polybius[n], having matured his plans for the liberation *, is represented by Plutarch[o] as setting out, on the march to Sikyon, from Argos, and first of all from Argos to Nemea—*εὐθὺς μετ' ἄριστον*. The context[o] demonstrates that the time thus designated could not have been later than the forenoon of the day, or rather must have been critically between the *ἀγορᾶς πληθώρα* (about the end of the third hour of the day) and noon. The usual time of the *ἄριστον*, among both the Greeks and the Romans, at this period, was the fifth hour of the day: and this, it appears to us, was the time at which the march of Aratus must be supposed to have begun.

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* There had been a succession of tyrants at Sikyon up to this time (the last three of them, Abantidas, Paseas, Nicocles[1]) whose joint usurpation went back 50 years[2] before the date of the liberation, B. C. 251; consequently to B.C. 301[3]. Aratus himself had gone into banishment at seven years of age, his father having been put to death at that time by Abantidas[4]. Nicocles was put down on this occasion, in the fourth or fifth month of his tyranny[5]: and though he escaped at the time, and Plutarch does not tell us what became of him after his expulsion, we collect from the Ibis[6] of Ovid that he must have been starved to death.

Aut, ut olivifera quondam Sicyone fugato,
Sit frigus mortis caussa famesque tuæ.

Six hundred exiles were restored to their country by this liberation[7].

[m] ii. 40, 3–6.

[n] ii. 43, 3.

[o] Vita, vii. cf. vi. also Polyb. xi. 25, 3.

[1] Pausanias, ii. viii. 2. cf. Plutarch, Aratus, ii.

[2] Cicero, De Officiis, ii. 23, 81.

[3] Cf. Plutarch, Aratus ix.

[4] Aratus ii.

[5] Aratus iv.

[6] 318.

[7] Cicero, De Officiis, ii. 23, 81. Plutarch, Aratus ix., says 580.

We shall have frequent occasion, in the course of the ensuing observations, to refer to the hours both of day and of night; and therefore it will be convenient to introduce here the scheme of noctidiurnal time, adapted to the day of this event, which we will assume at present to have been from sunrise on Feb. 5, B. C. 251, to sunrise Feb. 6. Sunrise, for the latitude of the ancient Argos (37° 38′ 9″ N.) for this day in this year is determined to 6. 55. 11·5 A. M. apparent time; and allowing for the effect of refraction, to 6. 52. 59·5; and sunset to 5. 4. 48·5, and including refraction, 5. 7. 0·5 P. M. apparent time. The scheme of ὧραι καιρικαὶ, between these extremes, adapted first of all to the latitude of the ancient Argos, will serve almost equally well for the same things, as adapted to the latitude of the ancient Sikyon, about 37° 54′ 15″ N.

*Scheme of* Ὧραι καιρικαὶ, *for the latitude of the ancient Argos or the ancient Sikyon.*

From sunrise Feb. 5, B. C. 251, to sunrise, Feb. 6.

| Ὧραι ἡμεριναί. | | | | | Ὧραι νυκτεριναί. | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Feb. 5. | | | | | Feb. 5–6. | | | | |
| Hour. | h. | m. | s. | | Hour. | h. | m. | s. | |
| i. | 6 | 52 | 59·5 | A. M. | i. | 5 | 7 | 0·5 | P. M. Feb. 5. |
| ii. | 7 | 44 | 9·5833 | | ii. | 6 | 15 | 50·4166 | |
| iii. | 8 | 35 | 19·6666 | | iii. | 7 | 24 | 40·3332 | |
| iv. | 9 | 26 | 29·7499 | | iv. | 8 | 33 | 30·2498 | |
| v. | 10 | 17 | 39·8332 | | v. | 9 | 42 | 20·1664 | |
| vi. | 11 | 8 | 49·9165 | | vi. | 10 | 51 | 10·0830 | |
| vii. | 11 | 59 | 59·9998 | | vii. | 11 | 59 | 59·9996 | |
| or | 12 | 0 | 0·0 | P. M. | | | | | |
| viii. | 12 | 51 | 10·0833 | | viii. | 1 | 8 | 49·9166 | A. M. Feb. 6. |
| ix. | 1 | 42 | 20·0666 | | ix. | 2 | 17 | 39·8332 | |
| x. | 2 | 33 | 30·2499 | | x. | 3 | 26 | 29·7498 | |
| xi. | 3 | 24 | 40·3332 | | xi. | 4 | 35 | 19·6664 | |
| xii. | 4 | 15 | 50·4165 | | xii. | 5 | 44 | 9·5830 | |
| i. | 5 | 7 | 0·4998 | Feb. 5. | i. | 6 | 52 | 59·4996 | Feb. 6. |

The distance from Argos to Nemea being 12 Roman miles direct, may be assumed at 13½ by road: and for this part of the march, which was performed by day, we have the interval from the beginning of the sixth hour, 11 h. 8 m. 50 s. A. M. to sunset, 5 h. 7 m. 0 s. P. M. an interval of six hours, mean time, complete—at the rate of little more than two Roman miles an hour. We may take it for granted then that, if Aratus set out from Argos an hour before noon, he might arrive at Nemea, without fatigue to himself or to his followers, by sunset the same day.

The distance from Nemea to Sikyon was 23 miles direct, 27 by road. Aratus arrived under the walls of the city a little before the watch were going their rounds; at the beginning of the ἑωθινὴ φυλακή[p]: and he was preparing to scale the walls when both the watches met, one from one direction the other in the opposite, just over against where he was. There can be no doubt then that the precise time of his arriving must have been as nearly as possible the beginning of the morning watch.

The night watches of the Greeks, as we have already had occasion to observe[q], differed from those of the Romans, in being three in number, instead of four; and four nocturnal hours long respectively, instead of three. The first began at the first hour of the night, i. e. sunset; the second at the fifth hour of the night; the third at the ninth. At the equinox consequently these divisions of the night would have answered to 6 P. M. 10 P. M. and 2 A. M. of modern noctidiurnal time respectively. At the period which we are considering, and for the parallel of the ancient Sikyon, they must have begun at 5.7 P. M. 9.42 P. M. and 2.18 A. M. respectively; and this latter must have been the time denoted by the beginning of the morning watch in the present instance.

On this principle the arrival of Aratus under the walls of Sikyon cannot be dated later than a quarter past two in the morning: and though delays occurred both before and after his arrival[r], which must have somewhat retarded the progress of the attempt, there can be no material error in assuming the precise moment of the arrival soon after 2 A. M., and the actual surprise of the place, after every interruption, before it was yet morning. When the walls were in the act of being scaled, Plutarch observes[s], Ἡ δὲ ὥρα κατήπειγεν, ἤδη φθεγγομένων ἀλεκτρυόνων, καὶ ὅσον οὔπω τῶν ἐξ ἀγροῦ τι φέρειν εἰωθότων πρὸς ἀγορὰν ἐπερχομένων. The distinctions of cock-crow made by the ancients were minutely illustrated in our former work on the Harmony of the Gospels[t]; and nothing requires to be added to the fulness of those illustrations. The first cock-crow would synchronise with the beginning of the morning watch of the Greeks; the second (which is always to be understood by the allusion to cock-crow ἁπλῶς, and is intended by Plutarch in this instance) was about an hour later. The walls were scaled at this moment—that is, about an hour after the arrival; and the city was forthwith in possession of the exiles: consequently before the dawn of day—which at this period of the year, when the sun rose about 6.53 A. M. could not have been earlier than 5.30 or 5.40 A. M. Nor is the break of day mentioned before the city was actually gained; and the people, roused from their beds by the news of what had happened, had begun to flock together from all parts: Καὶ συνδραμόντων πανταχόθεν ἡμέρα μὲν ὑπέλαμπεν ἤδη[v], κ̀, τ. λ.

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[p] Aratus, vii.

[q] Supra, page 241.

[r] Vita, vii. viii.

The distance then from Argos to Sikyon having been about 13 + 27 or 40 Roman miles, and the march from Argos having been begun about 11 A. M. the whole of this distance, it is evident, might be easily travelled, at the rate of not more than 2·7 miles an hour, between 11 A. M. on one day and 2 A. M. on the next. There is nothing improbable therefore in supposing that, if Aratus set out from Argos at or about 11 A. M. on the morning of Feb. 5, he might be already arrived at Sikyon soon after 2 A. M. on the morning of Feb. 6.

## SECTION IV.—*On the Lunar character of the day of the Liberation.*

When Aratus was under the walls of the city, waiting for the proper opportunity to scale them, the watch, as we have observed, were making their usual circuit preparatory to relieving each other; and besides being represented as approaching in both directions with much noise and tumult, were described as carrying with them φῶτα πολλά [x]. This allusion to *lights,* and especially *many lights,* is significant. The obvious inference from it is that either there was no moon this night, or if there was one, it had set by this time, and the rest of the night was dark. This latter is *a priori* as probable as the former; and if we may assume it to have been the case in the present instance, it will follow that though there was a moon before the arrival of Aratus, there was none at the time of his arrival, nor for the rest of the night—consequently that this moon could not have been shining *after* his arrival, yet might have been doing so up to the very time of it, and have set immediately afterwards. If so, about 2 A. M. this morning, or soon after it.

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[s] Cap. viii.

[t] Dissert. xlii. vol. iii. 211–216.

[v] Vita, viii. cf. Pausanias, ii. viii. 2. ὑπέφαινε γὰρ ἕως ἤδη.

Upon this point however we are not left to conjecture. Speaking of the march from Nemea, (that part of the whole which was strictly made in the night, between sunset and sunrise of one and the same Greek day,) Plutarch represents Aratus as purposely regulating it by the moon [x]: Συμμέτρως τῇ περιφορᾷ τῆς σελήνης ἐπιταχύνων καὶ πάλιν ἀνιεὶς τὴν πορείαν, ὥστε τῷ μὲν φωτὶ χρῆσθαι καθ' ὁδὸν, ἤδη δὲ δυομένης περὶ τὸν κῆπον εἶναι (the place of rendezvous [y]) πλησίον τοῦ τείχους. There was actually then a moon this day; and a moon which was shining all the time he was on the road, and setting just as he reached his destination. If then he arrived about 2 A. M. the moon was setting about 2 A. M. And hence the first criterion of the day of the arrival; derivable from the true lunar reckoning for the time being. This moon which had been shining all the time Aratus was on his march, and was setting just as he arrived under the walls, and consequently about 2 A. M. (to which the actual time of the arrival has been determined,) must have been nine days old. It is a general rule, especially in the winter season, that the moon at seven days old sets about midnight; and at nine days old about two hours after midnight.

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[x] Vita, vii.

[y] v. vii.

## SECTION V.—*On the Civil lunar date of the Liberation, and its relation to the true; and the inference deducible from it of the nature and epoch of the Calendar of Sikyon.*

These observations having been premised[z], we are now in a condition to consider the actual date of this Liberation of Sikyon, handed down in terms of the calendar for the time being. Plutarch has omitted to specify it in his account of the circumstances of the event itself; but he has supplied it at the end of his Life of Aratus, in connection with the honours decreed to his memory after his death[a]: Καὶ *θύουσιν αὐτῷ θυσίαν τὴν μὲν ᾗ τὴν πόλιν ἀπήλλαξε τῆς τυραννίδος, ἡμέρᾳ πέμπτῃ Δαισίου μηνὸς, ὃν* Ἀθηναῖοι *καλοῦσιν* Ἀνθεστηριῶνα, *καὶ τὴν θυσίαν ἐκείνην Σωτήρια προσαγορεύουσι. τὴν δὲ τοῦ μηνὸς ἐν ᾧ γενέσθαι τὸν ἄνδρα διαμνημονεύουσιν**.

Of the latter of these two dates nothing is known at present, except that it must have been some day entirely distinct from the former. The former, it appears, was the fifth of Dæsius † in the Sikyonian calendar; and some day in Anthesterion, the corresponding month in the Attic. The calendar date then of the liberation having been the 5th of

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* Aratus was said to have been lineally descended from Æsculapius[1]. Pausanias also has given a general account of his history[2]. He died at Ægium, and was buried in Sikyon[3]. It was suspected that he died of poison, administered to him by contrivance of Philip of Macedon[4].

† The actual name of the month in the present instance is of no importance: and if the month itself corresponded to Anthesterion, its site, both in the natural year and in its proper calendar, is determined by that of Anthesterion.

Of this name Dæsius however it is to be observed, that it was properly that of one of the months of the Macedonian calendar; the corresponding one to which in the Attic was Thargelion: nor can we help suspecting that Dæsius, as the name of the month in this instance, in the text of the Vita Arati, is accidentally in error for Dystrus; which was really the Macedonian month which corresponded to Anthesterion. Many of the Hellenic communities in the Peloponnese, before the time of Plutarch, had adopted the Macedonian names of the months; and Sikyon might have

[z] Cf. Pausanias, ii. viii. 2, for an account of the same things in brief.

[a] Vita, liii. cf. Polybius, viii. 14. § 7, 8. B.C. 213.

[1] Pausanias, iv. xiv. 5.

[2] ii. viii. 2—ix. 5.

[3] ii. ix. 4. cf. Plutarch, Vita, liii.

[4] Plutarch, Aratus, lii: Pausanias, ii. ix. 4: Polybius, viii. 14, 2: Livy, xxxii. 21. cf. Polyb. xvii. 13–15.

Dæsius, and the true lunar date of the same time, as we have seen, having been the ninth or tenth; it follows that the fifth of the civil lunar month at this time was falling on the ninth or tenth of the true. And that fact being established, it is demonstrative that the calendar, from which the former date was taken, must have been regulated by the Octaëteric cycle, and that the period peculiar to that cycle must now have been drawing to a close. For, if the month before this may be assumed at 29 days, the tenth of the moon at this time falling on the fifth of the next month, the first must have fallen on the 25th of the preceding one. And this would be decisive both of an octaëteric cycle in general, and of a cycle now 128 years old in particular. In a cycle of this description, 128 years after the epoch, the new moons must be found falling on the 25th of the month[b]: and that being the case at this time with the calendar of Sikyon, it is demonstrative both that the calendar itself was octaëteric, and that the cycle peculiar to it could not have been less than 128 years old.

### SECTION VI.—*On the year of the Liberation of Sikyon.*

We may now proceed to consider the year to which this transaction belongs. The history of the rise of the Achæan League, and of the first changes or modifications of that confederacy, is given by Polybius[c]. Its rise is dated Olymp. cxxiv, B. C. 284–280[d], about the time when Ptolemy Soter in Egypt, Lysimachus in Thrace, Seleucus Nicator in Syria, and Ptolemy Keraunus respectively came to their ends[e]. The exact time however appears to have been κατὰ τὴν Πύρρου διάβασιν εἰς Ἰταλίαν[d]: B. C. 281 *exeunte* or B. C. 280 *ineunte*[f], Olymp. cxxiv. 4. Dymæ, Patræ, Tritæa and Pheræ were united at this time[g], B. C. 280: and the first

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been one of them. Still, when we reflect to what an extent the affectation of variety in the nomenclature of the months was carried in the different calendars of the Greeks, it can never be considered improbable, much less impossible, that the name of Dæsius might have been given even to the second month in the old Sikyonian calendar.

[b] See vol. i. 42.

[c] ii. 37–46. cf. Pausanias, vii. vii. 1–3: Strabo, viii. 7. 220 b—226.

[d] Polyb. ii. 41. § 1, 2. 11.

[e] ii. 41, 2: 71, 5. 6.

[f] Cf. our Origines Kal. Italicæ, ii. 236–239.

[g] Polyb. ii. 41. § 12: Strabo, viii. v. 7. 222 b.

twenty-five years* of the League (B.C. 280–255) were passed with one Γραμματεὺς and two Στρατηγοὶ, appointed ἐκ περιόδου: afterwards there was only one Στρατηγὸς annually; the first of the number, Μάρκος ὁ Κερυνεὺς [h], who fell at last in battle with the Illyrians by sea, B. C. 229 [i].

Ἔτει πέμπτῳ, (the fifth year, as referred to B.C. 280,) B.C. 276, Ægium and Bura were incorporated [k]; and Ægium being the principal city of Achaia since the destruction of Helike, B. C. 372, it was made a rule of the union from this time forwards to meet at Ægium—ἀθροίζεσθαι ἐς Αἴγιον—for all their public proceedings [l]: of the continuance of which to the latest period of the existence of the League, we shall see abundance of proofs hereafter.

The date of the first annual Prætorship being assumed as B. C. 255, τετάρτῳ ὕστερον ἔτει Aratus, at twenty years of age, delivered Sikyon, his native city, from the tyranny of Nicocles, and incorporated it with the League [m]; and according to Pausanias [n] was appointed prætor for the first time immediately after that event. Ὀγδόῳ ὕστερον ἔτει, he was prætor the second time [o]; and in the course of this year added Corinth and Megara to the League [p]. This would be B. C. 251–8 or B.C. 243. Polybius designates it as the year which preceded the close of the first Punic war [q] by the decisive victory at the Ægates Insulæ; the proper date of which was the vi Idus Martias in the consular year of Lutatius, U. C. 512. But as this bore date from the Ides of Martius, U. C. 512, B. C. 242, and did not expire before the Ides of Martius, U. C. 513, B. C. 241 [r], Polybius reckoned the year before the end of the first Punic war, U. C. 511, B. C. 243 †.

* Strabo, viii. 7. 221 b, says 20 years.

† The first connection of Aratus with the League, in public life, is dated by Plutarch [1] 33 years before the time when he was constituted Στρατηγὸς

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[h] Polyb. ii. 43, 1. 2. cf. of Kerynea, 41, 14: Pausanias, vii. xxv. 3. It was situated inland, not far from Helike.

[i] Polyb. ii. 9. § 1: 10. § 8: 11. § 1.

[k] ii. 41, 13.

[l] Pausanias, vii. vii. 1. cf. xxiv. 3: Livy, xxxviii. 30: Strabo, viii. 7. 224, 225: in the grove sacred to Zeus, near Ægium, called Αἰνάριον or Ἀρνάριον.

[m] Polyb. ii. 43. 3.

[n] Cf. ii. viii. 3.

[o] Polyb. ii. 43, 4. 5.

[p] Cf. Plutarch, Aratus, xxi: xxii: xxiii: xxiv: Strabo, viii. 7. 221, 222.

[q] ii. 43, 6.

[r] Cf. our Origines Kal. Italicæ, ii. 241.

[1] Vita, xli.

## SECTION VII.—*Confirmation of the traditionary date of the Liberation. i. By the third Type of the Hellenic Octaëteris; ii. By the age of the moon at the time.*

There is every reason then to conclude that the year of the liberation of Sikyon was B. C. 251 [s]. With regard to the month and the day, (Dæsius 5 in the Sikyonian calendar, and some day in Anthesterion in the Attic,) in the first place, the epoch of the first Period of the third Type of the Hellenic Octaëteris being B. C. 542, that of the second would be B. C. 382; and B. C. 251 would be the 132d year of the second Period. In the next place, the Precession of the true mean new moons on those of the calendar, amounting to 24 days exactly in sixteen cycles, or 128 years, Cycle xvii. 1 of this second Period, in the 129th year of the decursus of the Period itself, the new moons would begin to fall on the 25th of the month; and Cycle xvii. 4, B. C. 251, the 132d year of the Period, they would still be falling on the 25th of the month. It follows from this state of the case, B. C. 251, that the true luna prima of the first month must have been the 25th of that month; and if we may assume this month at 29 days, the luna decima of that moon would fall on the 5th of

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*αὐτοκράτωρ*—followed by the calling in of Antigonus: which Plutarch makes the year before the battle of Sellasia, B. C. 223 [2], though its true date was two years before, B. C. 224. Reckon back 32 years complete from B. C. 223, and you come to B. C. 255, as the epoch, on this supposition, of Aratus' first appearance in public life. That year was certainly remarkable as being the first of the annual prætors of the League, beginning with Marcus of Κερύνεια: and on the same principle that Polybius [3] reckoned Aratus the founder, Philopœmen the champion, and Lycortas the consolidator of the League, Plutarch might have dated his first connection with it as a leading and influential character, from the time when it first assumed the same definite form and shape which it continued to wear ever after—and that was B. C. 255. And yet in reality if he was only 20 B. C. 251, he could have been only 16, B. C. 255, i. e. just passing out of the state of boyhood into that of the ephebus. The beginning of his public life therefore is more truly to be dated from his first public exploit—the Liberation of Sikyon, and the addition of that to the League; followed, according to Pausanias, by his first appointment to the prætorship.

[s] Cf. the Fasti Hellenici of Mr. Clinton, in anno: also Cicero, De Officiis, ii. 23, 82.

[2] Aratus, xli–xliii: Cleomenes, xvi: xvii.

[3] ii. 40.

the next month. And if the proper name of this second month for the time being was Dæsius, the 5th of Dæsius, in the Sikyonian calendar, B. C. 251, would be the luna decima: and we have already ascertained that the year of the liberation of Sikyon having been B. C. 251, and the day of the liberation, in terms of the calendar for the time being, the 5th of Dæsius, the 5th of Dæsius was the 10th of the moon.

Now Period ii. 132, Cycle xvii. 4 of the third Type of the Hellenic Octaëteris, (both corresponding to B. C. 251,) the first month bearing date January 4 at midnight, the second would bear date February 2 at midnight; and the fifth of that month February 6 at midnight: and if the name of this fifth month was Dæsius, February 6 was the fifth of Dæsius. The Julian date therefore of the fifth of Dæsius in the year of the liberation was Feb. 6, B. C. 251. And this is confirmed i. By the corresponding Attic date, which according to Plutarch was some day in the month Anthesterion. Period iii. 29, Cycle ii. 10, the first of Anthesterion bore date Jan. 31, B. C. 251: and therefore the seventh of Anthesterion, Feb. 6: and the seventh of Anthesterion and the fifth of Dæsius this year, in their respective calendars, were the same*. ii. By the age of the moon at the time, and the true lunar character of the day of the liberation. The true new moon of January B. C. 251 for the meridian of Sikyon is determined by calculation as nearly as possible to sunset, Jan. 28. Consequently Feb. 5 at sunset this moon was eight days old complete. It is manifest therefore that there would be moonlight from sunset on Feb. 5, B. C. 251, until two in the morning on Feb. 6—all the time for which Aratus was on the march from Nemea to Sikyon; but none at or soon after two in the morning, when he was arrived under the walls of the city. To place this out of question, we have had the time of the setting of the moon on this morning, Feb. 6, B. C. 251, for the latitude of the ancient Sikyon, calculated by the same competent person, to whose assistance in similar calculations we had occasion to allude before[t]: and it has been found that the precise time of the disappearance of the moon's centre below the horizon, in the year, and on the day and for the latitude in question, was actually at 2 h. 13 m. 31·7 s. apparent time, after midnight, only four minutes before our assumed date of the arrival of Aratus under the walls, 2. 17. 39 A. M.: which is as exact a confirmation of our conclusions as can be desired.

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* And this is the utmost which Plutarch can be understood to imply of necessity, respecting the coincidence in question; viz. that the Sikyonian date corresponded to some day in Anthesterion. He does not say that the fifth of the Sikyonian Dæsius corresponded to the fifth of the Attic Anthesterion; but that Dæsius in the former calendar was called Anthesterion in the latter. This is sufficient to prove that Dæsius was the second month in the Sikyonian calendar, as Anthesterion, at first at least, was in the Attic; and that generally speaking a given date in the one must have corresponded more or less closely to some date in the other. And yet under particular circumstances there might be as much as a month's interval between them. And it is very observable, that were the year of the liberation to be assumed B. C. 252, instead of B. C. 251, the fifth of Dæsius that year would have been found falling on Jan. 18, the fifth of Anthesterion on Feb. 15; if B.C. 250, instead of B.C. 251, the former would have borne date Jan. 26, the latter Feb. 23.

## SECTION VIII.—*On the inference from the above premises of the nature of the Calendar of the members of the Achæan League; and of its identity with the third Type of the Hellenic Octaëteris.*

The above consideration of this date Dæsius 5, February 6, B. C. 251, establishes the fact that the calendar of Sikyon at this time was regulated by the octaëteric cycle, and the cycle proper to it was that of the third Type of the Hellenic octaëteris in general. It proves also that, having run through the first of its proper periods, B. C. 542 to B. C. 382, it had been retained at Sikyon for a second; and this too, at the time which we have just been considering, B. C. 251, was fast drawing to a close. It is a case in point therefore, in proof of what we have often had occasion to assert, viz., that the old octaëteric cycle of the Greeks, having been once adopted, was seldom if ever laid aside for any other kind of correction, until it had run through one of its proper periods at least; and in some cases (of which this octaëteris of Sikyon is one, and that of Corinth, as we shall see hereafter, is another) not always at the end of that: not even after the Metonic correction had long been in existence, and was everywhere known and understood.

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[t] Supra, vol. i. page 430. note.

This particular case too of the calendar of Sikyon, from B. C. 542 to B. C. 251, leads by a natural and obvious inference to a general conclusion respecting the calendar of many more of the cities of the Peloponnese besides. For Sikyon was at this time an integral member of the Achæan League; and from the time of its incorporation a principal member too: besides being the native place of Aratus, the founder of the League. It is reasonable therefore to presume that the calendar of Sikyon at this very time was that of the League in general; in which case, not only the calendar of Sikyon, admitted into the League B. C. 251, and the calendar of Corinth, and that of Megara, associated with it B. C. 243, but also the calendars of the four cities, Dymæ, Patræ, Tritæa, and Pheræ, which were the first and original members of the union, and those also of the rest of the twelve cities, with their respective Δῆμοι or clans[v], which eventually made up the remainder of the League—not one only, we say, of these calendars, but all of them, will ultimately be reducible to the same type as that of Sikyon. It is certain that the League had a common calendar, which regulated its official year, and by which its prætors went in and out of office; and if there is no reason to suppose the calendar of the League in general was anything different from that of its members in particular, if they made use of this calendar after their association, they must have been using it before their association. And indeed the fact that the four cities, which originally composed the League, were previously making use of the same calendar, was as likely to be one of the predisposing motives to their union as any thing else. If the calendar then of any one of the members of the League can be shewn to have belonged to the third Type of the Hellenic correction, it may be fairly inferred from that fact that the calendars of each of the rest must have done so too.

## SECTION IX.—*On the Metonic Correction of the Octaëteric Calendar of the League.*

It may be objected however to our assumption that, if the calendar of Sikyon, and consequently that of the League, B. C. 251, was beginning on January 4, that fact would be contrary to the testimony of Polybius, from which it appears that the proper beginning of the official year of the League was the Πλειάδων ἐπιτολὴ, the *Ortus Vergiliarum heliacus;* and consequently not earlier in the natural or the Julian year than the month of May.

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[v] Strabo viii. 7. 222—224 a. where their names and order are given: Σικυών: Πελλήνη: Αἴγειρα: Αἰγαί: Βοῦρα: (Ἑλίκη:) Αἴγιον: Ῥύπες: Πατρεῖς: Φαρεῖς: Ὤλενος: Δύμη: Τριταιεῖς.

It cannot be denied that evidence occurs in Polybius to *this* effect ; That, sometime before he was writing his history, the official year of the League did begin at the Πλειάδων ἐπιτολή: but there is no evidence either in Polybius, or in any other historian who treats of these times, that it was beginning at any such season of the natural year, at the time of the liberation of Sikyon. Nor is there any difficulty in reconciling his testimony on this point with our own conclusions, if it be only admitted as a possible contingency that the calendar of the League might have been still octaëteric, and still beginning at the proper epoch of its proper type, some time in the winter, B. C. 251, yet Metonic, and bearing date at the Πλειάδων ἐπιτολὴ, long before the time of Polybius. To the proof of this distinction therefore we shall proceed, in order to discover, if possible, from the circumstantial evidence of contemporary history, down to what time the official year, and consequently the calendar, of the League, was not yet bearing date at the Πλειάδων ἐπιτολὴ, and after what time it was. If this time can be ascertained, it must have been that of the transition of the old octaëteris into the Metonic correction.

### SECTION X.—*No proof extant that the official year of the League was bearing date at the* Πλειάδων ἐπιτολὴ *before the battle of Sellasia.*

The second period of the octaëteris of the third Type having been allowed to begin at Sikyon and Corinth, and no doubt in the rest of the cities which eventually composed the Achæan League, B. C. 382, and to go on without interruption as low down as B. C. 251, that fact alone renders it morally certain that no correction of the calendar would be attempted until this second Period also had come to an end. The year of its consummation, B. C. 222, was that of the battle of Sellasia; and it is a truly remarkable coincidence that, up to the date of this battle, no proof can be discovered in Polybius that the official year of the League, and consequently the calendar, was beginning at any season of the natural year but the winter—yet immediately after this battle proof occurs that it must have been beginning at the Πλειάδων ἐπιτολή. There is indirect proof to that effect, one year after the battle, B. C. 221; and direct proof within three years after it, B. C. 219, when Aratus the younger was in office as prætor of the League, in the first year of the Bellum Sociale or Ætolicum [x].

In order to the elucidation of this point, it will be sufficient to begin the review of events in contemporary history from that point of time in the account of the origin and progress of the Bellum Cleomenicum [y], at which Antigonus was called in to the assistance of the Achæans; which, as we have already observed, was some time in the latter half of B. C. 224, two years and upwards before Sellasia. The motives to this step on the part of the Achæans appear to have been chiefly a series of defeats, three in number, one after another [z]; in the second of which Lydiades, formerly tyrant of Megalopolis, and afterwards a strenuous champion of the League, lost his life [a]. There was a preliminary *σύνοδος*, or meeting, to deliberate on this very question, whether Antigonus should be called in or not [b]: and that being decided in the affirmative, it is certain that he was invited this year [c], and there is every reason to believe that though detained some time before the isthmus, which had been preoccupied by Cleomenes, he actually entered the Peloponnese this year [d].

Directly after, when he had yet done nothing more than take possession of the citadel of Corinth, and march to Argos [e], mention is made of another *σύνοδος* at Ægium, which *he* attended; and after that of his going into winter quarters at Sikyon and Corinth—which brings us to the last quarter of B.C. 224; and then, *τῆς ἐαρινῆς ὥρας ἐνισταμένης*—consequently the first spring after his coming, the spring of B. C. 223—of his taking the field afresh[e]. The particulars of the campaign, such as it was, follow[f]; but they led to no decisive result: and *συνάπτοντος ἤδη τοῦ χειμῶνος*, Antigonus was again at Ægium, attending another *σύνοδος* of the Achæans *.

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[x] Polyb. iv. 37. 1—3: cf. i. 3: ii. 37: iv. 25, 26.

[y] Polyb. ii. 46, 47, 48.

[z] ii. 51: Pausanias, vii. vii. 42.

[a] Ibid. ii. 51. § 2: cf. Plutarch, Aratus, xli. xlii.: Cleomenes, v. vi. xiv.: Pausanias, viii. x. 4.

[b] Ibid. ii. 50, 4. cf. Plutarch, Aratea, xli. xlii.: Cleomenes, xv. xvi.

[c] ii. 50–53.

[d] Ibid. 54. cf. 52, 5–9.

[e] ii. 54, 1–5.

The next year, B. C. 222, Cleomenes was the first who resumed active operations, by an invasion of the territory of Argos, early in the spring[g]; and soon after, the forces of Antigonus also having been collected *ἐκ τῆς χειμασίας*. Laconia in like manner was invaded by the allied army, *τοῦ θέρους ἐνισταμένου*; in front of which Cleomenes had taken up his position at Sellasia[h]. Some days of inaction followed after the armies came into the presence of each other[i]: not less than ten[k]: and then the battle[l]. The next night Cleomenes escaped to Gythium, and from thence set sail to Alexandria[m]. A few days after the battle, (not more than two or three, according to Plutarch[n],) the news of an invasion of Macedonia by the Illyrians recalled Antigonus home; and on the second day of his march from Tegea, as he was returning and passing through Argos, the Nemean games were going on[o]: the date of which, as we hope to see hereafter, is determinable to May 29; and consequently that of Sellasia not later than May 24, previously, though probably that very day. We have then his final return to Macedonia, his victory over the Illyrians, and shortly after, his death.

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* These meetings at Ægium appear to have been of stated occurrence, about three months asunder, and it appears that there was one of them in the last month of the year: iv. 7, 1. 6. The exact time of the close of this first campaign, B.C. 223, may be collected from ii. 55, 5 of Polybius, compared with ix. 18, 1–3, relating to the two attempts of Cleomenes on Megalopolis, both made this year; the first of which failed, the second succeeded. It appears from ii. 55, 5, that the second attempt was made three months after the first; and from ix. 18, 2, that the first was made at the *Πλειάδων ἐπιτολή*, when the nights were *κομιδῇ βραχεῖαι*, to which circumstance its failure is attributed. It appears also from ii. 55, 1, that when the second attempt was made Antigonus was already in winter quarters: cf. ii. 64, 1. also Plutarch, Cleomenes, xxiii. xxv. On this principle he had gone into winter quarters three months after the *Πλειάδων ἐπιτολή*, which, if referred to the beginning of May, would be a difficulty; but understood, as it may be, of a time approaching to midsummer, would imply that he went into winter quarters about the autumnal equinox.

[e] ii. 54, 1–5.

[f] ii. 54, 6–16. cf. 64. 1.

[g] ii. 64, 1.

[h] 65, 1: cf. Livy, xxxiv. 28.

[i] ii. 66, 1.

[k] Cf. ii. 63.

[l] ii. 66–69: Plutarch, Philopœmen, v. vii.: Cleomenes, xxvii. xxviii.: Pausanias, ii. ix. 1–3.

[m] ii. 69, 10, 11.

[n] Cleomenes, xxvii. xxx.

There is consequently not the least reason, from any thing mentioned by Polybius, or any other of our authorities, to suppose that, up to the year of Sellasia, the official year of the Achæans was beginning at any season of the natural year but the winter. There can be no doubt about the year of Sellasia. It was the year of the death both of Ptolemy Euergetes, and of Seleucus, the son of Seleucus Callinicus; each of which Polybius dates Olymp. cxxxix.[p]: and B.C. 222 corresponded to Olymp. cxxxix. 3. It immediately preceded the year in which the details of the third book of his history began[q]; that is, B.C. 221. It was nearly three years from the date of the battle, in the winter of B.C. 220–219[r], when the Lacedemonians, who had kept open the office of king ever since the departure of Cleomenes, in the hope of his return, having heard of his recent death in Egypt, first proceeded to elect a successor*.

## SECTION XI.—*Proof in existence, immediately after the date of Sellasia, that the year of the League was beginning at the* Πλειάδων ἐπιτολή.

It is certain however that, not later than two years after the battle of Sellasia, distinct intimations that the official year of the League was bearing date from the Πλειάδων ἐπιτολὴ begin to appear.

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* We have, both in Polybius, v. 35–39, and in Plutarch, Vita, xxxvii. xxxviii., the account of the death of Cleomenes at Alexandria in the summer of this very year, B.C. 220. And this too is said to have happened before the expiration of Aratus the elder's year of office, and the beginning of that of Aratus the younger, iv. 37. Aratus the elder's year in fact began April 15, B.C. 220, and ended May 4, B.C. 219.

[o] Polyb. ii. 70, 4.

[p] ii. 71, 3–6. cf. iv. 1, 3.

[q] iii. 32, 3. cf. iii. 1, 11.

[r] iv. 35, 8. 14: cf. 2, 9: 34, 3: 29, 1: 28, 1: 27, 1: 36, 8: 37, 1.

i. The Bellum Sociale or Ætolicum broke out at this time, B. C. 220, in the last half year of Olymp. cxxxix. 4[s]. Just after the decision of the Ætolian prætor Aristo, or rather Scopas[t], to go to war, Timoxenus was still in office as prætor of the Achæans[v], but his year was on the eve of expiring: Οἱ δὲ περὶ τὸν Δορίμαχον καὶ Σκόπαν (the Ætolian leaders), observes Polybius, παρατηρήσαντες τὸν καιρὸν ἐν ᾧ λοιπὸς ἦν Τιμοξένῳ μὲν ὀλίγος ἔτι χρόνος τῆς ἀρχῆς, Ἄρατος δὲ καθίστατο μὲν εἰς τὸν ἐνιαυτὸν τὸν ἐπιόντα στρατηγὸς ὑπὸ τῶν Ἀχαιῶν, οὔπω δὲ ἔμελλε τὴν ἀρχὴν ἕξειν κ`, τ. λ. This is a description of the last month of the official year; the month of the ἀρχαιρεσίαι, or elections: and this was now coinciding with the proper season for the resumption of military operations; which could never have been the case with the last month, when the year was beginning in January. There wanted, in fact, only five days between the end of the year and the proper beginning of this season: Οἱ δὲ Ἀχαιοὶ, continues Polybius, καθηκούσης αὐτοῖς ἐκ τοῦ νόμου συνόδοὺ κατὰ τὸν καιρὸν τοῦτον, ἧκον εἰς Αἴγιον...Ὁ μὲν οὖν Τιμόξενος, ὁ τότε ἔτι ὑπάρχων στρατηγὸς, ὅσον οὔπω ληγούσης τῆς ἀρχῆς... ἀνεδύετο τὴν ἔξοδον[x]—Ὁ δ' Ἄρατος ... πένθ' ἡμέραις πρότερον τοῦ καθήκοντος αὐτῷ χρόνου, παραλαβὼν παρὰ τοῦ Τιμοξένου τὴν δημοσίαν σφραγῖδα, πρός τε τὰς πόλεις ἔγραψε[y] κ`, τ. λ. It appears too from the account of the campaign, which follows[z], that the summer, and even the season of harvest, had already arrived, before the battle of Caphyæ, in which Aratus was defeated on this occasion by the Ætolians; and in consequence of which, according to Plutarch[a], he was constrained to abdicate, and Eperatus was appointed in his stead[b].

ii. There are two passages of Polybius, (both belonging to this period of the history of the League,) in which the beginning of the year at the time in question is distinctly asserted: Αἰτωλῶν δ᾽ ἐστρατήγει Σκόπας[c], (the Ætolian prætor, who came into office October 8, B. C. 220[d],) ὁ δὲ χρόνος αὐτῷ τῆς ἀρχῆς μάλιστα τότε πως διῄρητο[d], at the time, that is, when Aratus the younger was entering on office, B. C. 219: the explanation of which follows: Τὰς γὰρ ἀρχαιρεσίας Αἰτωλοὶ μὲν ἐποίουν μετὰ τὴν φθινοπωρινὴν ἰσημερίαν εὐθέως· Ἀχαιοὶ δὲ τότε περὶ τὴν τῆς Πλειάδος ἐπιτολήν. ii. Τὸ μὲν οὖν κατὰ τὴν Ἀράτου τοῦ νεωτέρου στρατηγίαν ἔτος ἐτύγχανε διεληλυθὸς περὶ τὴν τῆς Πλειάδος ἐπιτολήν· οὕτω γὰρ ἦγε τοὺς χρόνους τότε τὸ τῶν Ἀχαιῶν ἔθνος. διόπερ οὗτος μὲν ἀπετίθετο τὴν ἀρχὴν, Ἐπήρατος δὲ[e] παρελάμβανε τὴν τῶν Ἀχαιῶν ἡγεμονίαν, Αἰτωλῶν δὲ Δορύμαχος (elected to succeed Scopas, B. C. 219[f]) ἐστρατήγει[g] *.

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[s] Polyb. iv. 7, 1–14, 9: cf. vi. 91, 1. 93, 10.

[t] iv. 5, 1. 9. 10.

[v] iv. 6, 7.

[x] iv. 7, 1–6: 8–10.

[y] Cf. Plutarch, Vita, xlvii.

[z] iv. 7–22, especially cap. 9.

[a] Vita, xlvii.

[b] Vita, xlviii. Polybius however, iv. 14, 7, 8, gives us to understand that the Achæans, though justly displeased with him, did not visit him with any particular mark of their displeasure. And as to Eperatus, he succeeded Aratus the younger, B. C. 218: cf. iv. 37, 1, when Aratus the younger entered B. C. 219, and iv. 82, 8, when Eperatus was elected in preference to Timoxenus.

## SECTION XII.—*Inference from these facts of a change in the form and the epoch of the Calendar of the League, B. C. 222.*

These are all the passages in Polybius, which either assert in plain terms or indirectly imply that the official year of the Achæan community was now beginning at the heliacal rising of the Pleiads. The first of them belongs to the spring of B. C. 220, the last to that of B. C. 218; and the first connects the evidence of this change of the official ingress almost with the year of Sellasia itself: for if Timoxenus was going out of office at or about the Πλειάδων ἐπιτολὴ, B. C. 220, he must have come into office at or about the Πλειάδων ἐπιτολὴ, B. C. 221; i. e. only one year after the battle of Sellasia.

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* Speaking of the election of the elder Aratus, to succeed Eperatus, at the end of his year, (B. C. 217,) Polybius, v. 30, 1–7, observes, Τοῦ δὲ χειμῶνος ἐπιγενομένου...καὶ τῶν χρόνων ἤδη καθηκόντων Ἐπήρατος μὲν ἀπετίθετο τὴν ἀρχὴν, οἱ δ᾽ Ἀχαιοὶ τῆς θερείας ἐναρχομένης στρατηγὸν αὐτῶν Ἄρατον κατέστησαν τὸν πρεσβύτερον. Again, v. 91, 1, he remarks, Ἄρτι δὲ τῆς θερινῆς ὥρας ἐνισταμένης, καὶ στρατηγοῦντος Ἀγήτα μὲν τῶν Αἰτωλῶν, Ἀράτου δὲ παρειληφότος τὴν τῶν Ἀχαιῶν στρατηγίαν, κ̓, τ. λ. The proper beginning of summer, or, as Polybius here calls it, the θερεία, or the ὥρα θερινὴ, every where among the Greeks was reckoned from the Πλειάδων ἐπιτολή. If then the beginning of the official year of the Achæans was now coinciding with that of the θερεία, it must have been coinciding with the Πλειάδων ἐπιτολή.

[c] Cf. iv. 27, 1. 28, 1, 5. 29, 1: cf 5, 9. 17, 1.

[d] iv. 37, 2. cf. 37, 3. Ἤδη δὲ τῆς θερείας ἐνισταμένης.

[e] Cf. iv. 82, 8.

[f] iv. 67, 1.

[g] v. 1, 1: of the ingress of the next prætor, and the next year, B. C. 218.

Now the year of this battle, B. C. 222, must have been the epoch of the third period of the third Type of the Octaëteric correction of Jan. 7, B. C. 542. The second period of this Type, which began B. C. 382, and, as we have seen, was still current at Sikyon, B. C. 251, would come to an end, and the third, if the cycle was allowed to go on for another period also, would begin, this year. At this time therefore the Achæans would have to determine whether they would retain their old lunar calendar, for another term of 160 years, or take advantage of the opportunity, spontaneously offering itself, to substitute for it the Metonic correction, and, (if they thought proper,) to change its beginning also. In either of these cases, a preliminary correction of the old epoch would be necessary; by raising the date of the first month one day, from January 8 to January 9: and in any case this correction, we may presume, would be administered to it. The first five months of the calendar, B. C. 222, would consequently stand as follows:

*Calendar of the Achæan League,*

Period iii. 1, Cycle i. 1, B. C. 222.

| Month. | | |
|---|---|---|
| i. | | January 9. |
| ii. | Dæsius. | February 7. |
| iii. | | March 9. |
| iv. | | April 7. |
| v. | | May 7. |

The date of the fifth month would therefore be May 7. Now in the Parapegma of Meton and Euctemon, adapted to the latitude of Athens, 37° 58′ 8″, and therefore equally well adapted to that of Sikyon, 37° 54′ 15″ N., the stated date of the heliacal rising of the Pleiads was laid down in the 13th of Taurus, May 6; and that being its date, or assumed date, B. C. 432, it would begin to be one day later B. C. 275, when the precession of the sidereal on the Julian year (one day in 157 years) amounted to a day complete; and it would still be May 7, B. C. 222.

Now this is a very critical coincidence. We thus see that the epoch of the fifth month in the Octaëteric calendar of the League, just at the beginning of a fresh period of 160 years, and consequently just at the fittest time to pass into the

Metonic, and the commonly received date of this natural phenomenon, the early rising of the Pleiads, the beginning of the summer season, were absolutely one and the same. As then we have the actual testimony of contemporary history that the calendar of the League was already bearing date at the Πλειάδων ἐπιτολὴ the very next year, B. C. 221, we cannot help inferring from this coincidence, that the beginning of the calendar must have been transferred from the first month to the fifth, this very year, B. C. 222; and for this very reason—because the proper epoch of this month, in this year, (the first of a new period of 160 years,) was coinciding with the stated date of the Πλειάδων ἐπιτολή.

And though it would not follow simply from the fact of this change in the beginning of the year, and in the order of the months of the calendar, at this time, that the Achæans must have discarded their old Octaëteric cycle at the same time, and substituted the Metonic in its stead; yet there is no improbability in that supposition *per se*: and from the analogy of many other instances of the same thing, which have come to our knowledge, in which a change in the beginning of the year was accompanied by one in the cycle of the calendar also, it may be presumed to have happened in this instance too. We have assumed therefore that the proper epoch of the change in the beginning of the official year of the League, from the first month to the fifth, (from Jan. 9 to May 7,) B. C. 222, was also that of the Metonic correction of its calendar: and upon that assumption we have constructed the type of this correction *—which the subsequent history of the republic and its prætors, for the next 76 years, as far as we have been able to discover, disproves in no one instance, but authenticates and confirms throughout.

This particular epoch of the Πλειάδων ἐπιτολὴ is recognised by Censorinus [h], as one of the beginnings of the civil year, with which he was acquainted; and we shall see further proofs, as we proceed, that the choice of it was not peculiar to the Achæan League. The opposite epoch, that of the Πλειάδων δύσις, is recognised by him also [h]: and as this had been already selected by the Ætolians, for the beginning of their calendar, B. C. 332—110 years at least before this change in the beginning of the Achæan calendar, B.C. 222—perhaps no more probable reason for deciding them in the choice of this epoch can be assigned at present, than the fact that their immediate neighbours and most constant and formidable rivals, the Ætolians, had made choice of the opposite one of the *Πλειάδων δύσις*. Be this as it may, it is certain that in consequence of this change, the beginning of the official year of the Achæan prætors, and that of the season of military operations, whether by land or sea, from that time forward, would coincide and be commensurable: and that consideration too would have its weight with the members of a confederacy, originally associated in self-defence against the encroachments of their neighbours, and, as their history from first to last demonstrates, almost always engaged in wars *.

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* Vol. iii. Appendix, Table xii.

[h] De Die Natali, xxi. ad fin.

* The change in the beginning of the year, which we suppose to have been made at this time, and, (as it may reasonably be inferred from that coincidence,) the change in the cycle of the calendar, from the Octaëteric to the Metonic also, is confirmed by the fact that there must have been one year, in the succession of Achæan prætors for these times, which had two prætors; and *that* year *this*, of B. C. 222. The proof of this fact is so easy and so direct, as to leave little or no doubt concerning it.

It is repeatedly asserted by Plutarch[1] that, from the time of his first prætorship to that of his last, Aratus was prætor every other year: and we shall see by and by that the truth of this statement may be relied upon, and is borne out by the actual number, and succession, and dates of his prætorships from one of these terms to the other. On this principle, if any other person is known to have been prætor in a particular year, it must be inferrible from that fact that Aratus was prætor the year before, and the year after. Now it is known from the contemporary history that Timoxenus was prætor B. C. 224; consequently it must be inferred from that fact that Aratus was prætor B. C. 225 and B. C. 223. Again it is known that Timoxenus was prætor B. C. 221: from which it is to be inferred that Aratus was so B. C. 222 and B. C. 220.

This latter fact is consistent with the rule; for if Aratus was prætor B. C. 222 he would be prætor again B. C. 220: and *vice versa*, if he was prætor B. C. 220, he must have been so B. C. 222. The former at first sight is not consistent with the rule: for if Aratus was prætor B. C. 223, he ought to have been prætor B. C. 221, instead of 222. On what principle then is the actual fact that Timoxenus was prætor B.C. 224 and B.C.

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[1] Aratus, xxiv. xxx. xxxviii: Cleomenes, xv.

221, and Aratus B.C. 223 and B.C. 220, to be explained, consistently with the rule which regulated the cycle of his prætorships? that of being prætor every other year.

It is easily explained on one supposition, but only one; viz. that B.C. 222, there were two prætors—one who came into office on the first day of the old year, Jan. 9, and another who came into office on the first of the new year, May 7: the former of whom, if Aratus was actually in office B.C. 223, must have been a different person from Aratus, the latter, for that very reason alone, and by virtue of the rule, must have been Aratus himself. This year therefore, B.C. 222, counting as two years, because it had two sets of magistrates, one which came in on Jan. 9 and another which entered on May 7—every thing is rendered consistent. Timoxenus having been actually prætor B.C. 224, (as we know from Polybius that he was,) Aratus would be prætor B.C. 223; as we know from the testimony of Plutarch, as well as infer from the fact that Timoxenus was so the year before, he too actually was. And Aratus having been prætor B.C. 223, some other person, whose name is not known, would be so B.C. 222, for the first four months of that year, at least; but if the beginning of the official year, and the cycle of the calendar, were both changed at this time, some other person must have come into office on the first of the fifth month, and have served for the rest of the year: and that other person, according to rule, could have been none but Aratus himself.

This reasoning it appears to us is conclusive; and can leave no doubt that Aratus, even according to rule, must have been the first prætor under the new calendar, dated from May 7, B.C. 222—inconsistent at first sight as that may appear with the fact that he was prætor, according to rule, in the last year of the old calendar also, B.C. 223. The case was just the same, in the transition of the calendar of the Achæan League from the Octaëteric Correction to the Metonic, this year, B.C. 222, as in that of the Athenian B.C. 425, and that of the Spartan, B.C. 424. The year of the transition had two sets of magistrates: one which came in at the usual time by the old rule, and went out before their time: another which came in by the new rule, and served for the rest of the year. And the year itself, which had this double set of magistrates, in the succession of these annual magistracies ever after counted as two.

As this reasoning however proceeds on the truth of the rule, which, according to Plutarch, regulated the cycle of the prætorships of Aratus; it will probably not be considered complete, unless it is shewn on good grounds that the truth of that rule may be depended upon. Aratus, according to Plutarch, was 17 times prætor; and died at last in his 17th prætorship itself[2]; and the year of his death, according to Polybius[3], was B.C. 214 or 213: and in our opinion it was B.C. 213; in which Mr. Clinton also fixes it[4]. His 17th prætorship consequently having coincided with B.C. 213, his first, according to rule, must have borne date 32 years before, B.C. 245. The date of this first prætorship has not been recorded in terms. Pausanias would imply that it was the year of the liberation of Sikyon[5], B.C. 251; or at the latest the year after, B.C. 250: a supposition confuted by its own improbability—if Aratus at that time was only 20 or 21 years old. Plutarch makes it the year before his second prætorship[6]; which is contrary to his own rule. There is no reason however why it might not have been *two* years before the second; and this second according to Polybius[7], having been B.C. 243, the first, two years before, must have been B.C. 245—when Aratus, who was 20 B.C. 251, would be 26 years old. And that this was actually the date of his first prætorship, and consequently the commencement of his public life, as the most influential member of the League, may be inferred from the fact, that Plutarch twice reckons it[8] 33 years from the time when he began to take the lead in the councils of the League to the time when Antigonus was called in, chiefly, if not entirely, through his influence also. And the date of the actual occupation of the Peloponnese by Antigonus, having been the end of B.C. 224 or the beginning of B.C. 223, (when Aratus himself too was actually in office, and as *στρατηγὸς αὐτοκράτωρ* also,) reckon back 32 years complete, from the beginning of B.C. 223, and it brings you to the beginning of B.C. 245, as the epoch of the commencement of the public life of Aratus; which in our opinion is a strong confirmation of the assumption that B.C. 245 was the year of his first prætorship.

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[2] Aratus, liii. cf. Phot. Cod. 161. pag. 104. 31. Eclogæ of Sopater.

[3] viii. 14. 2, 7. cf. vii. 10. 13: viii. 3, 7: 5, 1: 6, 1. 12.

[4] Fasti Hell. B.C. 213.

It is certain at least that, beginning with this year B.C. 245, his 17 prætorships may be arranged, agreeably to the rule affirmed by Plutarch, and for any thing which appears to the contrary, to contemporary history also, so that, while the first shall fall B.C. 245, the seventeenth shall fall B.C. 213, and all the intermediate ones proportionally between the two.

Two explanations only are necessary preliminary to this arrangement. i. There was one occasion, (which we believe to have been that of the tenth prætorship, B.C. 227,) when the office should again have come to Aratus in his turn, but was declined by him[9]: which nevertheless was reckoned by Plutarch as one of his prætorships, and must be so by us, without breaking the cycle of the rest notwithstanding. ii. As the xiith prætorship, B.C. 223, the last year of the old calendar, and the xiiith, B.C. 222, the first of the new, under the special circumstances of the case, were only one year asunder instead of two; it is manifest that some two of the prætorships, after that of B.C. 222, must have been three years asunder, instead of two, or the seventeenth could never have coincided with B.C. 213. Accordingly it is seen from the contemporary history that Aratus was prætor B.C. 220, and again B.C. 217—but not B.C. 218; in which year a totally different person, Eperatus, is known to have served the office.

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[5] ii. viii. 3. cf. Plut. Aratus, xi. which clearly implies that he continued in the condition of a private individual some years after the liberation of Sikyon.

[6] Aratus, xvi.

[7] ii. 43, 4. cf. ix. 17, 9: also Plut. Aratus, xvi. who too dates his second prætorship in the year of the attempt on Corinth, B.C. 243.

[8] Aratus, xli: Cleomenes, xvi.

[9] Plutarch, Cleomenes, xv: Aratus, xxxviii.

This exception to the rule, somewhere or other between B. C. 222 and B. C. 213, as we have observed, is required by the necessity of the case; and that it is found just in the interval between B. C. 220 and B. C. 217, is a striking confirmation of the truth of the rule itself, of every other point of the interval between B. C. 245 and B. C. 213: for the deviation from it here (the necessity of which, as we have seen, somewhere or other cannot be questioned) was evidently due to the fact that, as Aratus the elder was prætor B. C. 220, so Aratus the younger was so B. C. 219; and that having been considered *de facto* (as it was very likely *a priori* it would be) the same thing as if he had been prætor himself this year, Eperatus, not Aratus, was prætor the next year, B. C. 218. The cycle of alternation in his prætorships was certainly broken by this anomaly, for the rest of their number; but they went on, every other year, according to the rule from the first, to the end.

We shall conclude therefore with submitting a scheme of the ingresses of the official years of the League, both in the old calendar and in the new, from B. C. 245—B. C. 213; which will include the whole of the public life of Aratus, and will exhibit the series and dates of his different prætorships. With respect to these, the first and the last of the number being determinable to B. C. 245 and to B. C. 213 respectively, and the cycle of alternation having been ascertained, there does not seem to be any reason why these intermediate dates should not be depended on. With regard to the prætors of the years between, in some instances these too are known; but in the majority of instances they are not known, or not for certain. We collect from Plutarch [10] that, for three prætorships in succession, a celebrated character of the same time, formerly the tyrant of Megalopolis, afterwards a principal member of the League, whom he calls Lysiades, Polybius and Pausanias, Lydiades, alternated with Aratus; but in what year this alternation first began, notwithstanding, is a doubtful point. We may infer indeed from Polybius [11], that he must have joined the League some time between B. C. 238 or 239 and B. C. 229, and that he fell at last in the battle of Ladokeia [12], in the territory of Megalopolis, which Plutarch [13] dates in the twelfth prætorship of Aratus. But this xiith prætorship must have been B. C. 223—sometime after the battle in question; nor can there be any doubt, that τὸ δωδέκατον in the text in this instance is an error for some other number—though for what is uncertain.

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[10] Aratus, xxx.

[11] ii. xliv. 5. 2.

[12] ii. li. 3.

[13] Aratus, xxxv. xxxvi. xxxvii.

*Ingresses of the official year of the Achæan League, from B. C. 245 to B. C. 213, and years of the Prætorships of Aratus.*

| Period iii.<br>Cycle. | B. C. | | |
|---|---|---|---|
| xviii. 2. | 246–245. | Dec. 28. | Aratus, i.<br>Plut. Aratus, xvi. Pausan. ii. viii. 3. |
| — 3. | 245–244. | — 16. | |
| — 4. | 243. | Jan. 4. | Aratus, ii.<br>Plut. Aratus, xvi–xxiv: xxv. xxxii. Pol. ii. 43, 4. |
| — 5. | 243–242. | Dec. 24. | |
| — 6. | 241. | Jan. 12. | Aratus, iii.<br>A Nemean year. Plut. Aratus, xxviii. |
| — 7. | 241–240. | Dec. 31. | |
| — 8. | 240–239. | — 20. | Aratus, iv.<br>Arat. xxxi: Agis, xiii–xv. |
| Cycle. | | | |
| xix. 1. | 238. | Jan. 8. | Cf. Polyb. ii. xliv. 2. 5. 6. |
| — 2. | 238–237. | Dec. 28. | Aratus, v.<br>Aratus, xxx. |
| — 3. | 237–236. | — 16. | *Lydiades, i.<br>Aratus, xxx. Pausanias, viii. xxvii. 9. |
| — 4. | 235. | Jan. 4. | Aratus, vi.<br>Cf. Cleom. iv. iii. |
| — 5. | 235–234. | Dec. 24. | *Lydiades, ii.<br>Aratus, xxx. |
| — 6. | 233. | Jan. 12. | Aratus, vii.<br>Cleomenes, v. xv: Aratus, xxxvi–xxxviii. |
| — 7. | 233–232. | Dec. 31. | *Lydiades, iii.<br>Aratus, xxx. xxxv. |
| — 8. | 232–231. | Dec. 20. | Aratus, viii. |
| Cycle. | | | |
| xx. 1. | 230. | Jan. 8. | Aristomachus.<br>Cleomenes, iv: Aratus, xxxiv. xxxv. cf. xliv. Polyb. ii. 59, 1. 4, 5–60, 3. |
| — 2. | 230–229. | Dec. 28. | Aratus, ix.<br>Cf. Polyb. ii. 40, 9, 10: 44, 2: 51, 3. Plut. Aratus, xxxv. xxxvi. xxxvii: Cleom. v. vi: Polyb. ii. 51, 3: Pausanias, viii. xxvii. 10. |
| — 3. | 229–228. | Dec. 16. | Hyperbatus.<br>Plut. Cleom. xiv: Pol. ii. 51, 4. |
| — 4. | 227. | Jan. 4. | Aratus, x. 'Απείπατο. Timoxenus.<br>Plut. Arat. xxxviii. Cleomenes, xv. |
| — 5. | 227–226. | Dec. 24. | |

| Cycle. | B. C. | | |
|---|---|---|---|
| xx. 6. | 225. | Jan. 12. | Aratus, xi.<br>A Nemean year. Aratus, xxxviii. xl : Cleom. xvii : Polyb. ii. 52, 3. |
| — 7. | 225–224. | Dec. 31. | Timoxenus.<br>Polyb. ii. 53, 2. |
| — 8. | 224–223. | — 20. | Aratus, xii.<br>Plut. Arat. xli. xliv. xxxv. : Cleom. xxiii. xxv. |
| Period iv.<br>Cycle. | | | |
| i. 1. | 222. | Jan. 9. | |

*Metonic Correction.*

| Period i.<br>Cycle. | B. C. | | |
|---|---|---|---|
| i. 1. | 222. | May 7. | Aratus, xiii.<br>Polyb. ii. 54, 5 : 13. 14 : ii. 64. 1 : 65. 1. |
| — 2. | 221. | Apr. 26. | Timoxenus.<br>Polyb. iv. 6, 4. 7 : 7, 1. 6. 10. |
| — 3. | 220. | — 15. | Aratus, xiv.<br>Pol. iv. 6, 7. 7, 10: 37, 1. Plut. Arat. xlvii. |
| — 4. | 219. | May 4. | Aratus, Junior.<br>Polyb. iv. 37, 1 : 67. cf. 6. 7. 8 : 70, 2 : 80, 16 : 82, 1. : iv. 27, 1–9 : 28, 1 : 29, 1–3 : 57, 1 : 66, 4. 11. |
| — 5. | 218. | Apr. 23. | Eperatus.<br>Polyb. iv. 82, 6–8 : 87, 13 : v. 1, 1. 2 : ii. 1 : iii. 3. 6 : 29, 7 : 30, 1–7. Plut. Aratus, xlviii. |
| — 6. | 217. | May 11. | Aratus, xv.<br>Polyb. v. 30, 1. 7 : 78, 1 : 79, 1 : 91, 1 : 95, 5. Plut. Aratus, xlviii. |
| — 7. | 216. | Apr. 30. | Timoxenus.<br>Polyb. v. 106, 1. cf. 105, 3. 10 : iii. 10. |
| — 8. | 215. | — 20. | Aratus, xvi.<br>Cf. Plut. Aratus, xlix. l. li. and Livy, xxiv. 40. 9. U. C. 540, B. C. 214. |
| — 9. | 214. | May 8. | |
| — 10. | 213. | Apr. 27. | Aratus, xvii.<br>Plutarch, Aratus, li. liii. |

### SECTION XIII.—*On the continued observance of the rule of the Ingress, the* Πλειάδων ἐπιτολὴ, *from B.C.* 222, *down to the dissolution of the League, B.C.* 146.

There can be no doubt that the possession of the Achæan calendar, (both the Octaëteric and the Metonic,) with the true dates of the ingress and egress of the official year, as adapted to either, is calculated to throw the greatest light on the most complete and circumstantial portion of the history of the League, extant at present; the Bellum Cleomenicum, B.C. 225–222, and the Bellum Sociale, B.C. 220–217. And were the succession of prætors, from the death of Aratus, B.C. 213, to the dissolution of the League, B.C. 146, to be traced in the contemporary historians, Polybius, Livy, Diodorus, and others, it would also be seen, in repeated instances, that the official year of each was all this time beginning in the spring, just as our calendar would shew it to be. It cannot however be expected that we should enter on such an enquiry here; and for that purpose set about the consideration of the characteristic notes of 76 years in sequence. It will suffice for the general confirmation of the matter of fact, all through this period, if we can shew that the state of the case was still agreeable to this hypothesis, in the very last year of the political existence of the League, B.C. 147–146: especially as Mr. Clinton, in the third volume of his Fasti, which comprehends the chronology of these times, seems to have been of opinion that though the year of the League did once begin in the spring, yet some time before its dissolution, its beginning had been transferred from the spring to the autumn *.

Pausanias has specified the names and order of the last six prætors, before the destruction of Corinth; Menalkidas [i], Diæus [k], Damocritus [l], Diæus again [m], Critolaus [n], and after his death, for the remainder of his official year. Diæus a third time[o]. The prætorship of Critolaus is attested by Polybius also[p]: as likewise his dying while still in office, which was the reason why his place for the rest of the year was supplied by Diæus, the prætor of the year before: *Τοῦ νόμου κελεύοντος, ἐπὰν συμβῇ τι περὶ τὸν ἐνεστῶτα στρατηγὸν, τὸν προγεγονότα διαδέχεσθαι τὴν ἀρχὴν, ἕως ἂν ἡ καθήκουσα σύνοδος γένηται τῶν Ἀχαιῶν*[q]: and as the defeat and death of Diæus also took place before the stated time of any such meeting had come round[r], that too is a strong ground of presumption that all was over in this contest with the Romans, and the political independence and integrity of the League was altogether at an end, before the regular commencement of the next official year, or even the regular time of the elections, B. C. 147–146.

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* Cf. his Fasti ad Ann. 146. He admits indeed that it was still beginning in the spring as late as B.C. 169; and he collects himself that Archon, the prætor of that year, must have entered in May. Our calendar, Per. i. 54, shews that he actually entered April 20.

[i] vii. xi. 3–xii. 1.

[k] Ib. xii. i.

[l] Ib. xiii. i. 3.

[m] Ib. xiii. 4.

[n] vii. xiv. 2. cf. ii. 1, 2.

Assuming then that the prætors of the League had still continued to enter on the first day of the first month of the calendar, reckoned from May 7, B. C. 222, down to the time of these events; we may arrange the above mentioned names, with the dates of their respective ingresses, (taken from our own Metonic calendar of the League,) as follows.

*Ingresses of the prætors of the Achæan League, from B. C.* 151–146.

Period i. lxxii–lxxvi.

| | | |
|---|---|---|
| Menalkidas | B. C. 151 | May 2 |
| Diæus i. | — 150 | April 21 |
| Damocritus | — 149 | May 9 |
| Diæus ii. | — 148 | April 28 |
| Critolaus | — 147 | April 18 |

Now before the election of Critolaus, (April, B.C. 147,) mention occurs in Pausanias[s], of two delegacies from the Romans, sent to act as mediators in the dispute between the League and the Lacedemonians, which had begun in the year of Diæus, B. C. 150[t], and was still going on; at the head of one of which, he specifies the name of Orestes, probably L. Aurelius Orestes, consul U. C. 597, B. C. 157[v]. The first of these deputations was already at Corinth before the election of Critolaus[x]: the second arrived soon after it. The first was probably sent B. C. 148—the second B. C. 147—yet so as not to arrive before the election of Critolaus; which, according to our calendar, would be some time in the first half of April.

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[o] vii. xv. 1–3. 4.

[p] xxxviii. 2. § 8. 3. § 3–11: 4. 7.

[q] xl. 2. § 1. cf. 4. § 1.

[r] Pausanias, vii. xv. 4–xvi. 4.

[s] vii. xiv. 1, 2. cf. xvi. 1.

[t] vii. xii. 1. cf. xiii. 1–4. Compare Dio, Fragm. clxv. κς'.

[v] Cf. Pol. xxxviii. 1. § 1. § 6. § 3: 2. § 2.: § 1—who mentions a Sextus Julius, as the principal ambassador on the second occasion. cf. Paus. vii. xiv. 2. Probably the colleague of Aurelius, U. C. 597.

After this, mention is made of a stated assembly of the League at Tegea; at which this second deputation from the Romans expected to have had an audience in the regular course of things[y], but were purposely prevented by the contrivance of Critolaus, and told they must wait until the next regular meeting, six months later—*ἐς μῆνα ἐσομένην ἕκτον*, as Pausanias expresses it[y]; *ἥτις ἔμελλε γενέσθαι μετὰ μῆνας ἐξ*, as Polybius[z]; *ὃς μεθ᾽ ἕκμηνον ἔμελλεν ἔσεσθαι*, as Dio[a]. This would be quite agreeable to the rule of these meetings, as otherwise ascertained; and would imply that this being probably the first meeting in the official year of Critolaus, and taking place at or soon after his entry on office, April 18, B. C. 147—the next (six months later) would take place at the opposite quarter of the year. The Roman deputies construed this intimation (as he no doubt intended they should) into a refusal on the part of the Achæans to hear or confer with them at all; and therefore, without waiting for this second meeting, took their departure home. For it is agreed that the final rupture between the Romans and the Achæans was mainly the work of Critolaus. Critolaus, says Cicero[b], evertit Corinthum, Carthaginem Hasdrubal. Yet both Polybius and Pausanias recognise an assembly of the League at Corinth even after this[c], at which an embassy from Cæcilius Metellus, Proprætor in Macedonia, was present[d]: and this meeting at Corinth must have taken place late in the autumnal quarter, B. C. 147, as Polybius informs us[e], that after it was over[f], Critolaus employed himself through the winter, *ἐπιπορευόμενος τὰς πόλεις*—and exciting the minds of men every where against the Romans.

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[x] Pausanias, vii. xiv. 1, 2. cf. Dio, loc. cit.

[y] Pausanias, vii. xiv. 3. cf. Polyb. xxxviii. 3, 3–5. cf. 2. § 3: Livy, li.

[z] xxxviii. 3. § 5, 6, 7. cf. 4, 2: 5, 9.

[a] Fragm. clxv. 2.

[b] De Natura Deorum, iii. 38, 91. cf. Florus, ii. 16, 2.

[c] Polyb. xxxviii. 4, 2: 5, 9. Pausanias, vii. xiv. 4. cf. Livy, li.

[d] Polyb. xxxviii. 4, 1, 2. 7: 5, 9. cf. Dio, Fragm. clxv. § 2: and Justin, xxxiv. 1.

[e] xxxviii. 3, 1–6.

[f] § 7.

And here a fragment of Diodorus comes in, referrible to the same time and occasion: *Μάλιστα δὲ ὁ Κριτόλαος ἐξέκαυσε τὰς ὁρμὰς τοῦ πλήθους, ... χρώμενος δὲ τῷ τῆς ἀρχῆς ἀξιώματι φανερῶς κατηγόρει τῶν* Ῥωμαίων[g]. Pausanias both confirms and illustrates this account, by speaking of the active support and encouragement which he received from Pytheas, Bœotarch of Thebes, for the time being[h]. The Bœotian official year was certainly beginning in the winter; and this very year, Period iv. 34, Cycle xiv. 15, it would enter Jan. 9, B. C. 146. And that Pytheas was Bœotarch, B. C. 146 not B. C. 147, appears from Pausanias[i]; who shews that he was in office, even after the defeat and death of Critolaus[k], and the succession of Diæus[l]. He shews further that these things were going on in Achaia and Bœotia, B. C. 147, simultaneously with the election of Mummius to the consulship, and his delegation to the Bellum Achaïcum, at Rome, after the return of the deputies above alluded to: and by our Roman calendar, Mummius would enter office on the Kalends of January, U.C. 608, Jan. 16, B. C. 146; and therefore must have been elected at the usual time of the comitia, two or three months before.

The first battle of the Achæans with the Romans took place at Thermopylæ[m]; the former being under the command of Critolaus, the latter under that of the proprætor Cæcilius Metellus, commanding in Macedonia against Andriscus before the revolt of the Achæans[n]. The rise of Andriscus is dated by Pausanias in the year of Damocritus[o], B. C. 149–148; and Mr. Clinton dates its suppression by Metellus before midsummer, B. C. 148: to which we see no objection[p]. Critolaus was never seen again after this battle, either alive or dead[q]; and we have already inferred from the fact of his being succeeded by Diæus, the prætor of the year before, that his office must have become vacant before the expiration of his year—which might very well have been the case—Metellus, the Roman Proprætor, being on the spot, and eager to encounter the Achæans, and anticipate the consul Mummius, (of whose coming he was already aware[r],) and evidently hastening from Macedonia for this purpose, when he was met by Critolaus before Thermopylæ. The battle therefore in which the latter lost his life could not fail to have taken place before the 18th of April, B. C. 146: and we should be inclined ourselves to date it at the very beginning of March.

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[g] Ss. Deperditorum Vaticana Coll. ii. Lib. xxxiii. 1. 95. 28.

[h] vii. xiv. 4. The motive of the hostility of the Bœotians to the Romans at this time, is attributed by Pausanias to a sentence, which had lately been passed by Metellus, the Roman Proprætor in Macedonia, imposing three fines upon them; one at the suit of the Phocians, another at that of the Eubœans, and the third at that of the people of Amphissa: cf. vii. xiv. 4. Metellus was sent to Macedonia against Andriscus, B. C. 148, or earlier: and these fines were probably imposed B. C. 148 or 147: cf. vii. xiii. 1. 4: xiv. 4, 5: Polybius, xl. 1.

[i] vii. xv. 5. cf. xiv. 5.

[k] Ib. 1–3.

[l] Ib. 4.

[m] Pol. xl. 2, 1, 2: 4, 1. cf. 5, 8–12. Pausanias, vii. xv. 1–3. Orosius, v. 3. 289–291. Florus, ii. 16. 3, places it in Elis.

[n] Cf. the Auctor De Viris, Q. Cæcilius Metellus Macedonicus.

[o] vii. xiii. 1.

[p] Cf. Ibid. 4. Livy, Epitome, lii.

[q] Pausanias, vii. xv. 3. The Epitome of Livy (lii.) says he took poison.

The next battle was fought at the Isthmus; the Achæans on that second occasion being under the command of Diæus, the Romans under that of Mummius: whose arrival at the Roman camp, followed by the assumption of the command over the head of Metellus, is so circumstantially specified by Pausanias, that he has mentioned even the time of the day when he came; *περὶ ὄρθρον*[s]. This defeat was followed by the death of Diæus, as the former had been by that of Critolaus.

On the third day after the battle, according to Pausanias[t], he took the city of Corinth, and gave it up to fire and pillage. And between this part of the account of Pausanias, and that which appears to have been left on record by Polybius, it must be admitted a difference exists, or seems to exist, which at first sight would imply that these things must have happened much later in the year than they actually did; and consequently if they happened nevertheless before the end of the current official year of the League, that the beginning of this year must have fallen out nearer to the autumnal than to the vernal equinox. It appears from Appian [v], that Polybius was present in Africa at the capture and destruction of Carthage; and it appears from Strabo [x] that according to his own account, he was present at Corinth also, while the pillage of the city, as it seems to be implied, was still going on. It would seem to follow from both these facts, that the capture and destruction of Corinth were a later event than the capture and destruction of Carthage; and consequently since the latter is determinable to the month of June this year, and even to the nineteenth of June [y], the former must have happened later than the month of June at least.

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[r] Pausanias, vii. xv. 1–xvi. 1.

[s] vii. xvi. 1. cf. Polyb. xi. 1. 2. 4. 7: Livy, lii.: Florus, ii. 16, 5. The Auctor De Viris illustribus, Q. Cæcilius Metellus Macedonicus, supposes Metellus to have defeated the Achæans twice: Achæos bis prætor fudit, triumphandos Mummio tradidit. Cf. Orosius, v. 3. But under the head of L. Mummius Achaïcus, he gives a more correct account of the actual course of things: Nam cum illos Metellus Macedonicus apud Heracleam fudisset, et duce Critolao privasset, cum lictoribus et paucis equitibus in Metelli castra properavit (Mummius scil.), et Corinthios apud Leucopetram vicit duce Diæo: qui domum refugit, eamque incendit, conjugem interfecit, et in ignem præcipitavit, ipse veneno interiit. Pausanias, vii. xvi. 3, 4, shews that he died at Megalopolis, which must consequently have been his home.

[t] vii. xvi. 5.

If this question however is reducible to the issue, Whether the capture of Corinth or the capture of Carthage really happened first in the order of the events of this year, it is easily decided by the testimony of Polybius himself; who tells us [z], the Bellum Achaïcum was over before the Roman forces, serving against Carthage, were at liberty to have been transported to Greece, to serve in the Bellum Achaïcum. This positive testimony of a contemporary and eyewitness ought to be decisive, and to overrule the united authority of the later writers, Dio [a] or Zonaras [a], and Orosius [b], who make the destruction of Carthage precede that of Corinth [c]. Add to this the express statement of Pausanias, that the destruction of Corinth followed within three days after the battle at the Isthmus; and the inference, deducible from all our preceding reasonings, that the battle at the Isthmus must have been fought in the month of March, or early in that of April—and there can be no reasonable doubt respecting the actual order of these events. The capture and destruction of Corinth this year must have preceded that of Carthage three months at least *.

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* With regard then to the statement repeated from Polybius by Strabo, it is precarious to infer from it more than it expressly affirms; and that is, not that Polybius was present at the capture of Corinth, as he certainly

[v] Punica, 132.

[x] viii. vi. 215: Polybius, xl. 7. 8, 2–9. cf. Plutarch, Philopœmen, xxi.

[y] See our Origines Kalendariæ Italicæ, iii. 213–217.

[z] xl. 5. § 10. cf. xxxviii. 1. § 7: 2. § 10.

[a] ix. 29. 467 A. 469 D. 31. 470 A. –471 B.

[b] Orosius, iv. 23. v. 3.

[c] Cf. Diodorus, SS. VAT. ii. p. 95, 96: Fragm. Lib. xxxiii. i. 12–ii. 20.

## SECTION XIV.—*On the peculiarity of the duration of the Metonic Calendar of the League.*

We may conclude then, with every presumption of the truth of the supposition, that the same form of the Metonic correction of the Achæan calendar, which was brought into

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was at that of Carthage, but at the utmost that the pillage and plunder of the city was not yet over when he was there; nor even so much as that, since all which it really says is, That he saw some Roman soldiers, while he was there, playing at dice on some valuable paintings: a sight which he might have seen even some months after the capture of the city.

On this question, at what time, B. C. 146, Polybius would be at liberty to return from Africa to Greece, Pliny has a statement, which is of some importance; and will give us reason to conclude, that if he had not done so, before the resumption of actual operations against Carthage by Scipio, B. C. 146, which was a month or two before the capture, he could not have done so, until some time after the capture, and consequently the month of June at least. H. N. v. i. p. 255: Scipione Æmiliano res in Africa gerente, Polybius Annalium conditor, ab eo accepta classe, scrutandi illius orbis gratia circumvectus, prodidit, a monte eo (Mount Atlas) ad occasum versus saltus plenos feris, quas generat Africa, ad flumen Anatin, CCCCLXXXV M. pass. Cf. viii. 18. 369: also Solinus xxiv. 7–15. It is certain that the fleet could not have been spared for a voyage of discovery of this kind, before the reduction of Carthage, either B. C. 147, or B. C. 146; but after the capture of the city it might.

The treatment of Corinth by Mummius, after it first came into his power, and the final disposal of it by him in connection with deputies sent from Rome, were entirely different things. Of these deputies, cf. Cicero ad Atticum, xiii. 4, 5, 6. 30. 32, 33. These commissioners must have arrived on the spot about the autumnal equinox; Polybius, xl. 8, 3–9: 9, 1: for their proceedings lasted six months, and they returned in the spring of the next year: Polyb. ibid. 10, 1. Pausanias recognises the fact of this commission, as well as Polybius; but he tells us, (vii. xvi. 5,) Mummius had begun to dismantle the city, and to disarm the Achæans, of his own authority, before their arrival: and he speaks of the proceedings of both in conjunction after their arrival, as different from every thing which had preceded it: vii. xvi. 6.

The triumph of Mummius for these Achæan successes of his was some time B. C. 145; that of Scipio, De Carthagine, and that of Metellus, De Andrisco, both took place the year before: cf. Eutropius, iv. 6. Also our Origines Kal. Italicæ, iii. 217. 226.

Pausanias indeed has made a great mistake in the date of the conclusion of the Bellum Achaïcum; which, according to him, vii. xvi. 7, was the archontic year of Antitheus, Ol. clx. 1. Diodorus of Sikyon; the latter of which corresponded to B. C. 140, instead of B. C. 146.

use B. C. 222, continued to be in use down to B. C. 146. Consequently, for one cycle of its proper Callippic period, (by which it was probably intended to be regulated,) it might have been, and no doubt was, the distinctive calendar of the League; but the dissolution of the League itself having taken place in the very last year of this first period, and at the very end of this year itself, it must have ceased just at the beginning of the second period, to be the distinctive calendar of an union of cities like that of the League, as it had begun to be so just at the beginning of the first. And this is probably the explanation of the qualification with which Polybius' testimony to the proper beginning of the official year, in the two instances cited above, as we saw, was accompanied; the qualification of τότε, implying that though it was actually beginning at the Πλειάδων ἐπιτολὴ, in the times of which he was treating, it was not actually doing so, (at least as the calendar of the League,) in his own time. It would not follow from this fact that the calendar itself had ceased to exist; only that, as the League had long ceased to exist, so the calendar of the League had ceased to exist also*. But there was no reason *a priori*, why the individual members of the League, which had been using this calendar before their incorporation into one body, might not retain it for their own use even after the dissolution of the League. And it is a strong internal evidence of its continued existence, even in the time of Polybius, that, as we often had occasion to remark in our Origines Kalendariæ Italicæ, the calendar by which he himself appears to have reckoned in preference to any other, whensoever he was at liberty to choose one for himself, seems to have been this Metonic one of the Achæan League.

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* Polybius's meaning, by the use of τότε in both those instances, however may simply have been, that the official calendar of the League was *then* beginning at the Πλειάδων ἐπιτολὴ, though it had not always done so; and its real explanation may be the historical fact that, from B. C. 542 to B. C. 222, the same calendar, which was afterwards that of the League, was attached to the season of midwinter, from B. C. 222 to the dissolution of the League, it was so to the Πλειάδων ἐπιτολή.

## CHAPTER II.

### *On the Lunar Correction of the Primitive Solar year at Syracuse, Gela, and Agrigentum in Sicily.*

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### SECTION I.—*On the date of the capture of Nikias in the Syracusan Calendar, B.C.* 413.

One date only is extant in terms of the Syracusan calendar, as only one was in the Sikyonian; but this too is a critical one, and leads in the same way to the discovery of the nature and the epoch of the calendar in which it was recorded, and from which it was transmitted to posterity. This date is that of the capture of Nikias along with the wreck of the Athenian army, in their memorable retreat from Syracuse, B. C. 413: and we are indebted for it to Plutarch's Life of Nikias[b].

*Ἐκκλησίας δὲ πανδήμου Συρακουσίων καὶ τῶν συμμάχων γενομένης, Εὐρυκλῆς ὁ δημαγωγὸς ἔγραψε, πρῶτον μὲν τὴν ἡμέραν ἐν ᾗ τὸν Νικίαν ἔλαβον ἱερὰν ἔχειν, θύοντας καὶ σχολάζοντας ἔργων, Ἀσιναρίαν τὴν ἑορτὴν ἀπὸ τοῦ ποταμοῦ καλοῦντας. ἡμέρα δ' ἦν τετρὰς φθίνοντος τοῦ Καρνείου μηνὸς, ὃν Ἀθηναῖοι Μεταγειτνιῶνα προσαγορεύουσι.*

We learn from this testimony that the date of the event in the calendar of the time was the 27th of Carneus. There can be no doubt concerning the year. It was the nineteenth of the Peloponnesian war, B. C. 413. On the question of the month, and the day of the month, in the Julian calendar, which corresponded to *this* month and to *this* day in the Syracusan, there may be a doubt *a priori;* which we must first proceed to remove.

The year then being B. C. 413, it corresponded, in the Attic calendar, to Period i. 20, Cycle ii. 1, of the Metonic correction, when the first of Hecatombæon was bearing date July 16, the first of Metageitnion August 15, and the first of Boëdromion Sept. 14. And as Plutarch gives us to understand in the preceding passage that the Syracusan Carneus and the Attic Metageitnion in general agreed together; the first question for our consideration is *this*, Whether the 27th

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[b] Cap. xxviii.

Carneus in the Syracusan calendar and the 27th Metageitnion in the Attic, B. C. 413, were one and the same day? If they were, the Syracusan calendar of this time must have been regulated by the Metonic cycle as much as the Attic. If they were not, though the Attic calendar was Metonic, the Syracusan as yet could not have been so.

## SECTION II.—*On the relation of this date to the corresponding Attic date; and the inference from it of the nature of the Syracusan Calendar at this time.*

The first of Metageitnion, B. C. 413, bearing date August 15, the 27th must have borne date September 10: and consequently if the 27th Carneus was actually the same as the 27th Metageitnion, the 27th Carneus must have been bearing date September 10 also. A fact however is on record, among the other circumstances of the retreat of the Athenians, which will prove demonstratively that this could not have been the case.

This fact is that of the lunar eclipse which preceded the beginning of the retreat; for it is agreed that immediately after the attempt on the Epipolæ[c], and the return of Gylippus, when the Athenians had made up their minds to raise the siege and to begin their retreat, while such a step was practicable, the moon was eclipsed the same night. Now the Tables of Pingré exhibit a lunar eclipse B. C. 413, August 27, 10. 15 P. M. at Paris; which would correspond to August 27, 11. 7 P. M. at Syracuse: nor was there any other that year, except on the fourth of March, 8. 30 P. M. at Paris, 9. 22 P. M. at Syracuse. And this could not have been the eclipse intended in this instance; since both from the testimony of Plutarch[d], just before the beginning of the retreat, and from that of Thucydides, immediately after the capture[e], and also from the whole course of the preceding events of the year, it is certainly to be collected that this part of the history of the siege, from the beginning of the attempt to retreat down to the final surrender of the Athenians, belongs to the close of the summer, and the beginning of the autumnal, quarter. The eclipse therefore, which happened the very night on which it was intended to have begun the retreat, must have been that of August 27.

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[c] Thucydides, vii. 43–50: Plutarch, Nikias, xxi. xxii: Diodorus, xiii. 11, 12.

[d] Nikias, xxii.

[e] vii. 86, 87.

Now Thucydides has left an account of proceedings, first between this eclipse and the beginning of the retreat, and secondly between the beginning of the retreat and the surrendry of Nikias, by means of which there is no difficulty in making out *twelve* days from the first of these events to the last: and over and above these, there was a certain number of days besides, which *he* has not distinctly specified, but which nevertheless, it may be shewn, could not have amounted to less than four or five. On this principle there must have been *sixteen* days at least between the date of the eclipse and that of the surrendry of Nikias. The former therefore having been August 27, the latter could not have been earlier than Septemper 12. And this being supposed the true Julian date of Carneus 27 this year, there must have been two days' difference at least between the 27th Carneus and the 27th Metageitnion: this latter, as we have seen, corresponding to September 10, the former, by hypothesis, to Sept. 12.

But this is not all. The exact interval between the eclipse and the surrender of Nikias being assumed at *eighteen* days, (which we apprehend to be nearer the truth than *sixteen*,) then the date of the capture at last, and consequently of the 27th Carneus, must have been September 14: and September 14, B. C. 413, corresponding to Boëdromion 1 in the Attic calendar, Period i. 20, on this principle the 27th of the Syracusan Carneus, B. C. 413, was falling on the first of the Attic Boëdromion; and therefore the first of Carneus on the fifth of Metageitnion. And as the Attic calendar at this time may be assumed to have been still true to the moon, this fact is demonstrative that the first of the civil lunar month at Syracuse, at this particular period of the history of the calendar there, was falling on the fifth of the true; the mere statement of which is sufficient to authorise the inference that the Syracusan calendar, both at this time and long before it, must have been regulated by a very different cycle from the Metonic, and one in which the true new moons were liable to advance on the corresponding civil or cardinal dates.

## SECTION III.—*On the epoch of the Syracusan Calendar, as recoverable from the relation of the civil to the true new moon, B. C.* 413.

If the lunar correction of Solon had been retained by the Athenians as low down as B. C 413, with no other change than that of the correction of the epoch, (Jan. 19 by Jan. 20,) at the beginning of its second Period of 160 years, B. C. 432; B. C. 413 would have corresponded to Cycle iii. 4 of this second Period, and the calendar new moon of Gamelion that year would have been falling Jan. 17, the calendar new moon of Boëdromion, Sept. 9, but the mean or the true new moon, at this point of time in the decursus of the Period, when the Precession had accumulated to three days complete at least, must have been falling on the 12th or the 13th of September, the third or the fourth of the month. And that this would actually have been the case that year is proved not only by the fact of the lunar eclipse, August 27, 11. 7 P.M. (Syracuse), but also by that of the solar eclipse, August 14, 0. 7 A.M. (Syracuse) the same year; for the next new moon to this could not have fallen earlier than September 12, and might have fallen as late as September 13—three days in the one case, and four in the other, later than Boëdromion 1, Sept. 9.

Now as the 27th Carneus, B. C. 413, answered to September 14, the 25th must have answered to September 12; and September 12 being the true date of the mean new moon, on this principle the true mean new moon for the time being was falling on the 25th of the month. This fact being placed out of question, two conclusions necessarily follow from it: First, that the proper cycle of the Syracusan calendar must have been the Octaëteric; secondly, that the proper Octaëteric cycle of the Syracusan calendar at this time could not have been less than 128 years old. At the end of 128 years from the epoch of a given calendar of this kind, but not sooner, as our Table of the lunar Precession peculiar to this cycle shews[f], this phenomenon must have begun to be of stated and regular occurrence for one cycle of eight years, though not for a longer period; viz. that the true mean new moons would be falling on the 25th of the month. The Syracusan calendar then, which was exhibiting this phenomenon B. C. 413, could not have been less than 16 cycles or 128 years old; but it might not have been more. Let us assume that it was exactly 129 years old this very year, B. C. 413. If so, it must have come into being B. C. 542: and that being the date of the third Type of the Hellenic Octaëteric correction in general, this coincidence can leave no doubt that in arriving at this year, as the epoch of the decursus of the proper cycle of the calendar, deducible from the phenomena which it was actually exhibiting B. C. 413, we have arrived at its true date; and that this Syracusan calendar is one of those which came into being along with the third Type of the Hellenic Octaëteris in general, Jan. 7, B. C. 542.

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[f] Vol. i. page 42.

## SECTION IV.—*Verification of the Epoch.*

### i. By the date of the capture of Nikias, Carneus 27, Cycle xvii. 2, Sept. 14, B. C. 413.

*i. Syracusan Calendar, Period i. 130, Cycle xvii. 2*[g].

Epoch, December 27, B. C. 414.

| Month | | | B. C. | Month. | | | B. C. |
|---|---|---|---|---|---|---|---|
| i. 29 days | December | 27 | 414 | vii. 29 days | June | 21 | 413 |
| ii. 30 — | January | 25 | *413 | viii. 30 — | July | 20 | — |
| iii. 29 — | February | 24 | — | ix. 29 — | August | 19 | — |
| iv. 30 — | March | 24 | — | x. 30 — | September | 17 | — |
| v. 29 — | April | 23 | — | xi. 29 — | October | 17 | — |
| vi. 30 — | May | 22 | — | xii. 30 — | November | 15 | — |

The name of the ninth month in this list being supposed Carneus, the 27th of this Carneus must have coincided with September 14*. September 14 consequently must have been the date of the capture of Nikias, according to this calendar. We shall proceed to confirm this conclusion by the proof of the fact that the date of the capture, as deduced from that of the eclipse, August 27, was September 14 also.

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* The first of Carneus this year, on this principle, having been August 19, and the first of Metageitnion, in the Attic calendar, having been August 15, it is clear that Plutarch must have had good grounds for his assertion that the Syracusan Carneus, in the style of the Attic calendar, was called Metageitnion. Carneus at least and Metageitnion coincided almost entirely this year, though that might not have been the case every year.

[g] Vide supra p. 347. Also vol. iii. Appendix, Table iii.

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ii. By the Julian date of the capture, as deduced from the date of the eclipse, August 27, which preceded it; September 14 also.

This eclipse, as we have already observed, occurred on the very night after the return of Gylippus, with the reinforcements which he had been collecting since the failure of the attempt on the Epipolæ[h]; in consequence of which too the Athenians had come to the resolution to raise the siege and to begin their retreat, while there was still a possibility of accomplishing it safely. At this critical moment, when every thing was ready, and the retreat should have begun—Ἡ σελήνη, says Thucydides, *ἐκλείπει· ἐτύγχανε γὰρ πανσέληνος οὖσα ... καὶ Νικίας, ἦν γάρ τι καὶ ἄγαν θειασμῷ τε καὶ τῷ τοιούτῳ προσκείμενος, οὐδ' ἂν διαβουλεύσασθαι ἔτι ἔφη, πρὶν, ὡς οἱ μάντεις ἐξηγοῦντο, τρὶς ἐννέα ἡμέρας μεῖναι, ὅπως ἂν πρότερον κινηθείη*[i].

At first sight this statement appears to be *recta fronte* at variance with the conclusion, which we have undertaken to prove, not only of the beginning of the retreat, but of its consummation by the capture of Nikias, within 18 days of the date of the eclipse; for it seems to be implied hereby that the retreat itself could not actually have begun in less than 27 days from the same date: and Plutarch too would appear to insinuate the same thing, by observing—Ὁ δὲ *Νικίας ἄλλην ἔπεισε σελήνης ἀναμένειν περίοδον, ὥσπερ οὐκ εὐθὺς θεασάμενος αὐτὴν ἀποκαθαρθεῖσαν*[k]. But that there is either some error of reading in the text of Thucydides in this instance, or that he himself must have mistaken and misrepresented the real length of the interval in question, may be inferred not only from the reason of things, and the actual course of subsequent events, but from the express testimony of Diodorus Siculus; according to which the utmost amount of the delay in the execution of the design of the Athenians, which could have been produced by the unexpected intervention of a phenomenon of this kind, neither was, nor (in conformity to the usual prescriptive rule under such circumstances)

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[h] Thucydides, vii. 46–50.

[i] vii. 50.

[k] Nikias, xxiii.

could have been, more than three days: *Μελλόντων δ' αὐτῶν τῇ ὑστεραίᾳ πλεῖν, ἐξέλιπεν ἡ σελήνη τῆς ἐπιούσης νυκτός. διόπερ ὁ Νικίας καὶ φύσει δεισιδαίμων ὑπάρχων, καὶ διὰ τὴν ἐν τῷ στρατοπέδῳ νόσον εὐλαβῶς διακείμενος, συνεκάλεσε τοὺς μάντεις. τούτων δ' ἀποφηναμένων ἀναγκαῖον εἶναι τὰς εἰθισμένας τρεῖς ἡμέρας ἀναβάλλεσθαι τὸν ἔκπλουν, ἠναγκάσθησαν καὶ οἱ περὶ τὸν Δημοσθένην συγκαταθέσθαι, διὰ τὴν πρὸς τὸ θεῖον εὐλάβειαν*[l]. And indeed Plutarch himself, notwithstanding his allusion to another revolution of the moon, so far agrees with Diodorus as to imply that the usual period of suspense in cases of this kind might have been three days, but could not have been more: *Ἄλλως τε καὶ τῶν περὶ ἥλιον καὶ σελήνην ἐπὶ τρεῖς ἡμέρας ἐποιοῦντο φυλακήν, ὡς Ἀντικλείδης διέγραψεν ἐν τοῖς ἐξηγητικοῖς*[m]. A delay of three days, under the circumstances of the case, so produced, is admissible, and is even necessary to the chronology of subsequent events: but one of 27 days, we may venture to say, is impossible.

During this interval however, whatsoever it was, Thucydides tells us the Syracusans, having already conceived the design of preventing the retreat, were actively engaged in making preparations for that purpose; beginning immediately after the eclipse: *Ἀνεπειρῶντο ἡμέρας ὅσαι αὐτοῖς ἐδόκουν ἱκαναὶ εἶναι*[n]: after which, when all was ready, *ἐπειδὴ δὲ καιρὸς ἦν, τῇ μὲν προτεραίᾳ πρὸς τὰ τείχη τῶν Ἀθηναίων προσέβαλλον*[n], and the next day, *τῇ ὑστεραίᾳ*, they engaged them in the harbour, in the first of the battles by sea.

What number of days then was intended in the first of these allusions? or how many may be reasonably supposed sufficient for the purpose? Not necessarily more than three; the number prescribed by the rule of the soothsayers, after such a phenomenon as a lunar or solar eclipse. We may assume then that these preparations, preliminary to the first attack on the Athenians, after the eclipse, occupied the interval from August 27 exclusive to August 30 inclusive; that the attack on the lines of the Athenians was made on August 31, and that the first of the battles by sea, the day after, took place on September 1.

Besides this interval, there was a second, between the first battle by sea and the next[o]; during which the Syracusans were employed in closing the mouth of the harbour, and the Athenians in making preparations for a second battle by sea. And though this too is left indefinite by Thucydides, Diodorus states it at three days also[p]. So that, on the whole, besides the sum total of the days actually specified by Thucydides, amounting to *twelve*, *six* more have to be taken into account, which will make up the entire interval from the day of the eclipse to that of the surrender of Nikias, to 18 days; and if the date of the former was August 27, will determine the latter to September 14. Upon this hypothesis we may proceed to arrange the chronology of the intermediate events, in the Attic, the Syracusan, and the Julian calendar, respectively.

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[l] Diodorus, xiii. 12. [m] Nikias, xxiii. [n] vii. 51. cf. 52. [o] vii. 56. 60.

## SECTION V.—*Chronology of the retreat of the Athenians, from the date of the eclipse, August 27, to that of the capture of Nikias, September 14, in the Attic, the Syracusan, and the Julian calendar.*

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| | Metageitnion. | Carneus. | | |
|---|---|---|---|---|
| Days. | 6 P.M.<br>14 | 6 P.M.<br>10 | Aug. 27.<br>11.7 P.M. | Eclipse of the Moon[q]. |
| | Midn. | Midn. | Midn. | |
| i. | 14 | 10 | Aug. 28 | The Syracusans begin their preparations to intercept the retreat, which they continue this day and the two next. |
| iv. | 17 | 13 | — 31 | Preliminary assault on the lines of the Athenians: τῇ προτεραίᾳ[r]. |
| v. | 18 | 14 | Sept. 1 | Τῇ ὑστεραίᾳ. First battle by sea, and first victory of the Syracusans: followed by three days, devoted to the closing of the harbour on the one side, and to preparations for the renewal of the combat on the other[s]. |

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[p] xiii. 14.

[q] Thucyd. vii. 50: Diodorus, xiii. 12: Nikias, xxiii. cf. Dion, xxiv: Plutarch, De Superstitione, viii: Polybius, ix. 19, 1–4: Pliny, H. N. ii. 9. 229.

[r] Thucyd. vii. 52.

[s] Thucyd. vii. 52–59: Diodor. xiii. 13, 14: Nikias, xxiv.

| Metageitnion. | | Carneus. | | |
|---|---|---|---|---|
| Days. | 6 P.M. 14. | 6 P.M. 10. | Aug. 27. 11.7 P.M. | Eclipse of the Moon. |
| | Midn. | Midn. | Midn. | |
| ix. | 22 | 18 | Sept. 5 | Second battle by sea, and second victory of the Syracusans[t].<br>The Heraclea at Syracuse in course on the evening of this day[v], consequently Carneus 19, dated 6 P.M. Sept. 5.<br>Hermocrates sends his message: and the night is spent by the Syracusans in preoccupying the passes[x]. |
| x. | 23 | 19 | — 6 | Passed by the Athenians still under the walls of Syracuse, but in preparation for the retreat. Οἱ δὲ πρὸς τὸ ἄγγελμα ἐπέσχον τὴν νύκτα, . . καὶ . . ὡς οὐκ εὐθὺς ὥρμησαν ἔδοξεν αὐτοῖς καὶ τὴν ἐπιοῦσαν ἡμέραν περιμεῖναι[y]. |
| xi.<br>1st of retreat. | 24 | 20 | — 7 | The retreat begins on the third day from the date of the last battle by sea, inclusive[z]: Ἡ ἀνάστασις ἤδη τοῦ στρατεύματος τρίτῃ ἡμέρᾳ ἀπὸ τῆς ναυμαχίας ἐγίγνετο.<br>This day is spent in marching[a]. |
| xii.<br>2nd of retreat. | 25 | 21 | — 8 | Τῇ δ' ὑστεραίᾳ πρωΐ—The retreat is continued[b]. |
| xiii.<br>3rd of retreat. | 26 | 22 | — 9 | Τῇ δ' ὑστεραίᾳ οἱ Ἀθηναῖοι προῄεσαν. The retreat is still continuing[c]. |
| xiv.<br>4th of retreat. | 27 | 23 | — 10 | Πρωῒ δὲ ἄραντες ἐπορεύοντο αὖθις[d]. Thunder and rain this day. Ἔτυχον δὲ καὶ βρονταί τινες ἅμα γενόμεναι καὶ ὕδωρ, οἷα τοῦ ἔτους πρὸς μετόπωρον ἤδη ὄντος φιλεῖ γίγνεσθαι[d].<br>The φθινόπωρον was dated in the Metonic calendar Sept. 16, and it was now only two or three days before the change of the moon. |
| xv.<br>5th of retreat. | 28 | 24 | — 11 | Τῇ δ' ὑστεραίᾳ προὐχώρουν[e]. The retreat continues. On the night of this day, an attempt is made to move unperceived: Τῆς δὲ νυκτὸς . . . ἐδόκει . . . ἐχώρουν ἐν τῇ νυκτί[f]. |

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[t] Thucyd. vii. 60–71: Diodorus, xiii. 14–17: Nikias, xxiv. xxv.

[v] Thucydides, vii. 73: Nikias, xxiv. cf. xxv. xxvi.

[x] Thucyd. vii. 73, 74: Diodorus, xiii. 18: Nikias, xxvi.

[y] Thucyd. vii. 74. cf. Diodorus, xiii. 18: Nikias, xxvi: Polybius ix. 19.

[z] Thucyd. vii. 75.

[a] vii. 78.

[b] Ibid. 78.

[c] Ibid. 78.

[d] Ibid. 79.

[e] Ibid. 79.

[f] Ibid. 80.

| | Metageitnion. | Carneus. | | |
|---|---|---|---|---|
| Days. | 6 P.M. 14. | 6 P.M. 10. | Aug. 27. 11.7 P.M. | Eclipse of the Moon. |
| | Midn. | Midn. | Midn. | |
| xvi. 6th of retreat. | 29 | 25 | Sept. 12 | Ἅμα δὲ τῇ ἕῳ ἀφικνοῦνται ὅμως κ̀, τ. λ.[g] Morning of this day. The same day is mentioned again: Ὡς ἥ τε ἡμέρα ἐγένετο . . . καταλαμβάνουσι περὶ ἀρίστου ὥραν[h]—when the Syracusans overtook them. |
| xvi. 6th of retreat. | 29 | 25 | — 12 | Demosthenes surrenders this day: Ἐπειδὴ γοῦν δι' ἡμέρας βάλλοντες[i], κ̀, τ. λ.<br>Nikias with his division continues his retreat: Νικίας δὲ καὶ οἱ μετ' αὐτοῦ ἀφικνοῦνται αὐτῇ τῇ ἡμέρᾳ[k], κ̀, τ. λ. |
| xvii. 7th of retreat. | 30 | 26 | — 13 | Οἱ δὲ Συρακόσιοι τῇ ὑστεραίᾳ, κ̀, τ. λ[l]. . . . μέχρι ὀψέ.<br>The Athenians under Nikias again move forward during the night: Ὅμως δὲ τῆς νυκτὸς φυλάξαντες τὸ ἡσυχάζον . . . οὗτοι δὲ . . . ἐχώρουν τῆς νυκτὸς ᾗ ἐδύναντο[m]. |
| xviii. 8th of retreat. | Boedromion.<br>1 | 27 | — 14 | Νικίας δὲ, ἐπειδὴ ἡμέρα ἐγένετο, κ̀, τ. λ[n].<br>This day he too surrenders: Τέλος δὲ . . . Νικίας . . . ἑαυτὸν παραδίδωσι[o]. |

The entire length of time taken up by the retreat, properly so called, it thus appears, according to Thucydides, must have been eight days, from Metageitnion 24, Carneus 20, September 7, inclusive, to Boëdromion 1, Carneus 27, September 14, inclusive also. Plutarch makes it nine; for he speaks of Nikias as *παρὰ πᾶσάν γε τὴν πορείαν ἐφ' ἡμέρας ὀκτὼ βαλλόμενος*[p], even before he mentions the surrender of Demosthenes: after which, with respect to Nikias, he again observes, *Οὐ μὴν ἀλλὰ καὶ τὴν νύκτα διεκαρτέρησε* (which must be the night of the eighth day), and *Καὶ τὴν ἐπιοῦσαν ἡμέραν* (the ninth day) *προῄει βαλλόμενος πρὸς τὸν Ἀσίναρον ποταμὸν*, where his surrender too takes place the same day. It is probable that if he did not confound the entire duration of the retreat, up to the surrender of Nikias, with the first six days up to the surrender of Demosthenes, he reckoned the day after the last battle by sea as the first of the retreat, though really passed by the Athenians on the spot. In any case, there can be no question that Thucydides' account of these things is that which we are bound to follow. Diodorus' chronology of the retreat is still more in defect of the truth than Plutarch's is in excess; for he makes it last only three days, from the first setting out of the Athenians to their final surrender[q].

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[g] vii. 80.

[h] Ibid. 81

[i] Thucyd. vii. 82. cf. Pausanias, i. xxix. 9: Plut. Nikias, xxvii.

[k] Ibid. 82.

[l] Ibid. 83.

[m] Ibid. 83: Diodorus, xiii. 19–33.

[n] vii. 84.

[o] Ibid. 85.

[p] Nikias, xxvii. cf. Pausanias, vii. xvi. 3.

The capture of the Athenians having thus been completed by the middle of the day, September 14, the return of the Syracusans with their prisoners to the city, of which Thucydides speaks next[r], would doubtless begin the same day; but as they could not have been less than three or four days' march from Syracuse when they had got to the river Asinarus, or Assinarus, it would be the end of Carneus or the beginning of the next month (some time after Sept. 17) before they could be supposed to have all got back. The disposal of the captives therefore in the Lautumiæ, and the beginning of the treatment to which they were subjected there[s], would strictly bear date from the beginning of the tenth month; and if it lasted ἐπὶ ὀκτὼ μῆνας[t], must have continued from the first of the tenth month, Sept. 17, B. C. 413, to the first of the sixth, May 11, B. C. 412. And the first seventy days of this period, during which the confinement of the prisoners was the closest, and their treatment the most severe, must have been critically the interval from the first of the tenth month, Sept. 17, to the eleventh of the twelfth, November 25, inclusive: the mere statement of which fact is sufficient to explain the reason why the Syracusans just at that time of the year began to relax the rigour of their treatment.

In a word, this coincidence merely, that the final surrender of the Athenians took place on the 14th of September, only fourteen days before the autumnal equinox, September 28, serves both to illustrate and verify Thucydides' description of their sufferings afterwards, from the heat of the sun by day at first, and from the cold by night soon after, as well as from the want of the necessaries of life—before they began to be partially mitigated—with which we will conclude our review of these circumstances from the date of the eclipse downwards[v]: Τοὺς δ' ἐν ταῖς λιθοτομίαις οἱ Συρακόσιοι χαλεπῶς τοὺς πρώτους χρόνους μετεχείρισαν. ἐν γὰρ κοίλῳ χωρίῳ ὄντας καὶ ὀλίγῳ πολλοὺς οἵ τε ἥλιοι τὸ πρῶτον καὶ τὸ πνῖγος ἔτι ἐλύπει διὰ τὸ ἀστέγαστον· καὶ αἱ νύκτες ἐπιγιγνόμεναι τοὐναντίον μετοπωριναὶ καὶ ψυχραὶ κ`, τ. λ. καὶ λιμῷ ἅμα καὶ δίψει ἐπιέζοντο. ἐδίδοσαν γὰρ αὐτῶν ἑκάστῳ ἐπὶ ὀκτὼ μῆνας κοτύλην ὕδατος καὶ δύο κοτύλας σίτου ... καὶ ἡμέρας μὲν ἑβδομήκοντά τινας οὕτω διῃτήθησαν κ`, τ. λ.

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[q] xiii. 19.

[r] vii. 86.

[s] vii. 86.

[t] vii. 87.

## SECTION VI.—*On the verification or illustration of the Octaëteric Calendar of the Syracusans, from B. C.* 542 *to B. C.* 382.

### i. By the date of the battle of Himera, B. C. 480.

It cannot be denied that we are almost entirely destitute of the means of tracing the decursus of this calendar, from the beginning of its first cyclical Period, B. C. 542, to the end, B. C. 382; and so verifying or illustrating it at intermediate points by recorded dates. But this objection is ultimately resolvable into the absence of circumstantial historical information about the affairs of Sicily, for the whole of the same interval of time: nor is there any reason on that account to doubt of the truth of the conclusion, at which we have already arrived, respecting either the nature or the epoch of the calendar.

It has been seen however[x] that in the year of the expedition of Xerxes, the date of a memorable event in the annals of the Siciliot Greeks, that of the battle of Himera, in which the Carthaginians under Hamilcar were defeated by the Greeks of Sicily under Gelo, and the third of the battles at Thermopylæ, distinguished in like manner by the death of Leonidas and his followers, (the most glorious victory and the most honourable defeat, as Diodorus contrasted the two events,) coincided together, and both with the Julian September 10, B. C. 480. If the reader is curious to know the month and the day, in the Syracusan calendar, to which this Julian date corresponded; it is easy to determine it. B. C. 480 was the 63d year of the Period, Cycle viii. 7; and the epoch of the calendar that year was December 30, B. C. 481.

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[v] vii. 87.

[x] vol. i. 372.

*Syracusan Calendar, Period i. 63, Cycle viii. 7.*

Epoch Dec. 30, B. C. 481.

| Month. | | | | B. C. | Month. | | | |
|---|---|---|---|---|---|---|---|---|
| i. | 29 | Dec. | 30 | 481 | v. | 29 | April | 27 |
| ii. | 30 | Jan. | 28 | 480 | vi. | 30 | May | 26 |
| iii. | 29 | Feb. | 27 | — | vii. | 29 | June | 25 |
| iv. | 30 | March | 28 | — | viii. | 30 | July | 24 |

ix. or Carneus August 23.
19th of Carneus, Sept. 10.

The date of the victory consequently was the 19th of Carneus this year, as that of the capture of Nikias was the 27th, B. C. 413.

### ii. By the date of the expulsion of Thrasybulus, and the recovery of the *αὐτονομία*, B. C. 466.

The expulsion of Thrasybulus, the brother and successor of Hiero, king or tyrant of Syracuse, and the recovery of the *αὐτονομία* by the Syracusans, are dated by Diodorus Ol. lxxviii. 3. in the archontic year of Lysanias[x], B. C. 466, sixty years before the beginning of the tyranny of Dionysius[y], B. C. 406: and three years after, Ol. lxxix. 2, B. C. 463, in the archontic year of Tlepolemus[z], he has the following statement; which, though introduced historically under this year, is evidently to be understood of what had been done three years before, B. C. 466: *Καταλύσαντες τὴν Θρασυβούλου τυραννίδα* (scil. *οἱ Συρακούσιοι*) *συνήγαγον ἐκκλησίαν, καὶ περὶ τῆς ἰδίας δημοκρατίας βουλευσάμενοι πάντες ὁμογνωμόνως ἐψηφίσαντο Διὸς μὲν Ἐλευθερίου κολοσσιαῖον ἀνδριάντα κατασκευάσαι, κατ᾽ ἐνιαυτὸν δὲ θύειν Ἑλευθέρια, καὶ ἀγῶνας ἐπιφανεῖς ποιεῖν κατὰ τὴν αὐτὴν ἡμέραν ἐν ᾗ τὸν τύραννον καταλύσαντες ἠλευθέρωσαν τὴν πατρίδα· θύειν δ᾽ ἐν τοῖς ἀγῶσι τοῖς θεοῖς ταύρους τετρακοσίους καὶ πεντήκοντα, καὶ τούτους δαπανᾷν εἰς τὴν τῶν πολιτῶν εὐωχίαν*[a].

There is something remarkable in this number, 450; which at first sight appears excessive and improbable. Yet there is no variation in the text of Diodorus; and excessive as it seems to be, it carries with it an internal argument of its consistency, in being neither more nor less than the number of days which would be comprehended in fifteen months, reckoned according to the nominal length of every month in the Greek lunar calendar—i. e. at 30 days each; or in one year so reckoned, 360 days in length, and three months of another, reckoned at 90 days. And though we have only a conjecture to propose in explanation of it, it is one not destitute of probability *a priori*, and calculated to account for this number, extraordinary as it may appear.

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[x] xi. 67. cf. 65, 66. [y] Ib. 68. [z] Ib. 71. (70) [a] Ib, 72.

This conjecture is that the exact interval, reckoned according to the idiom of the calendar, between the beginning of the tyranny of Thrasybulus and the passing of this decree, was 450 days; and the 450 sacrifices, prescribed for the *Ἐλευθέρια*, were suggested by that coincidence, and intended to be a memorial of it—one sacrifice being appointed for each one day. If this be admitted, it will enable us to determine the day of the accession of Thrasybulus to the tyranny, and consequently of the death of Hiero; assuming only that Diodorus is right in the year of his expulsion, B. C. 466.

The account of the expulsion at least is given by him under this year[b]; and it may be inferred from it that it must have happened towards the end of the year: for he sums up the account at last by observing that, while these things were doing at Syracuse, the appointment of the first Tribuni Plebis was going on at Rome[c]. This synchronism is mistaken with respect to the year of that appointment, which was not B. C. 466, but B. C. 493; but it is not necessarily mistaken with respect to the *season* of the year: and as the actual appointment of the first Tribuni Plebis took place on the 10th of December Roman, U. C. 261, which fell on December 12 Julian, B. C. 493[d], the expulsion of Thrasybulus at Syracuse, which Diodorus supposes to have been going on at the same time, must have happened at the same season of the year in general, B. C. 466. And this would be so near to the end of the year itself in the calendar of the time being, that we may very well suppose any thing of a more solemn and serious kind, which required to be deliberately and publicly done, even as a consequence of the expulsion of the late tyrant, and of the recovery of their liberty, would be purposely reserved for the new year. The first care of the

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[b] xi. 67, 68.

[c] Cap. 68.

[d] Cf. our Origines Kal. Italicæ, ii. 190.

Syracusans would be to elect the magistrates, under whom they intended to live, even as *αὐτόνομοι*; and the regular time for these elections (the last month of the year) was so close at hand when they regained their freedom, that probably even that would not be anticipated. Their next would be to institute the *Ἐλευθέρια*, and any other memorial of their newly recovered independence which they might think proper.

We will assume then that the date of the assembly at which these Eleutheria were instituted[e] was the first public assembly of the first year of the *αὐτονομία*, B. C. 465: and therefore probably the *νουμηνία*, or new year's day, Cycle x. 6, Jan. 11, B. C. 465. If therefore we are right in our conjectural explanation of the 450 sacrifices, appointed at this time, and of the reason for which they were fixed at that number; reckon back fifteen months by the calendar from the first day of the first month, Cycle x. 6, Jan. 11, B. C. 465, and you get to the first day of the eleventh month, Cycle x. 4, October 25, B. C. 467: which, on this principle, must have been the day of the accession of Thrasybulus, and consequently of the death of Hiero*.

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* Diodorus assigns one year to the reign of Thrasybulus[1], and ten years eight months in one instance to that of Hiero[2], eleven years in another[3]; and seven to that of Gelo before him[4]: and assuming that the end of the reign of Thrasybulus was B. C. 466, these dates give the beginning of *his* reign B. C. 467, that of the reign of Hiero B. C. 478, and that of the reign of Gelo (at Syracuse at least) B. C. 485.

The death of Hiero, some time in Olympiad lxxviii, B. C. 468–464, is attested by the argument of the first Olympic ode of Pindar: *Ἐπιγέγραπται ὁ ἐπινίκιος Ἱέρωνι τῷ Γέλωνος ἀδελφῷ, νικήσαντι ἵππῳ κέλητι τὴν ογ´ Ὀλυμπιάδα· ἢ ὡς ἔνιοι, ἅρματι . . . συνέβη δὲ αὐτὸν νικήσαντα τεθρίππῳ τὴν οη´ Ὀλυμπιάδα ἐν ταύτῃ τελευτῆσαι.* The necessity of the case however obliges us to suppose that in reading the 73d Olympiad the text of this scholium is corrupt; for that would imply that Hiero was already king of Syracuse, B. C. 488–484, even before the death of Gelo. Mr. Boeckh reads in the same passage also, *Ὁ δὲ αὐτὸς καὶ τὴν οζ´ νικᾷ κέλητι τὴν δὲ οη´ τεθρίππῳ*[5]: the former B. C. 472, the latter B. C. 468: neither of which is inconsistent with the known facts of his history, or of that of Gelo before him. The first Olympiad, which came within the limits of his reign,

[e] xi. 72.

[1] xi. 66. cf. 67.

[2] xi. 38.

[3] xi. 66. 72. 70. cf. Schol. ad Pind. Argum. of Pyth. i.

[4] xi. 38.

[5] Cf. also ad Olymp. ii. 166.

B. C. 478–467, was Ol. lxxvi. 1: in which year too, as we learn from Diodorus[6], he founded the city of Ætna—the existence of which is alluded to by Pindar in his first Pythian ode[7]. But whether he could have been victor at any of the games of this Olympiad is doubtful, if the statement of Ælian[8], that he was excluded from some one Olympiad through the influence of Themistocles, is true; for that Olympiad must have been this very one, B. C. 476 itself, since he not only contended at the two next, Ol. lxxvii, B. C. 472, and Ol. lxxviii, B. C. 468, but won the prize at each. The text however of the argument above alluded to is probably to be corrected by reading *οϛ′* instead of *ογ′*: B. C. 476 instead of B. C. 488. He won the victory again in the single horse-race, at the lxxviith Olympiad, B. C. 472, and in the chariot-race, at the lxxviiith, B. C. 468, the date of which, according to our Olympic calendar, as may be seen from our Tables[9], was August 2–7. If he died therefore himself in the course of this Olympiad, it must have been later than Aug. 7, B. C. 468, at least: and he was probably ill of his last sickness at this very time: for we learn from Aristotle, quoted by the scholiast on Pindar[10], that as Gelo his brother died of the dropsy, so did he of the stone, under which he was labouring when Pindar wrote that ode. Pausanias also gives us to understand he survived *all* his Olympic victories, long enough to vow certain *ἀναθήματα* to Jupiter Olympius, in commemoration of his successes, but not long enough to complete and dedicate them: in confirmation of which he quotes the following inscription, still extant at Olympia:

*Σόν ποτε νικήσας, Ζεῦ Ὀλύμπιε, σεμνὸν ἀγῶνα*
  *τεθρίππῳ μὲν ἅπαξ μουνοκέλητι δὲ δὶς,*
*δῶρ' Ἱέρων τάδε σοι ἐχαρίσσατο· παῖς δ' ἀνέθηκε*
  *Δεινομένης, πατρὸς μνῆμα Συρακοσίου*[11].

With respect too to this question of the date of the death of Hiero, the fact which has been left on record of the personal history of Æschylus is of importance; viz. That after his contest with Sophocles, and the defeat which he sustained, he retired from Athens to the court of Hiero: who of course must then have been still alive. For we shewed supra[12], that this could not have happened earlier than the spring of B. C. 468—yet even then would be prior to Ol. lxxviii. 1—at which Hiero gained his last prize. If Æschylus retired to Sicily early B C. 468, and Hiero himself died only late B. C. 467; he might have survived his coming a year and six months.

This question is of some importance, because the authority of Aristotle and that of Diodorus Siculus are apparently opposed to each other; and we seem to have to decide between them, which shall be followed in preference to the other. The sum of these three reigns, Gelo's, Hiero's, and Thrasybulus', at Syracuse in succession, according to Diodorus, was 18

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[6] xi. 49. 48.

[7] Ver. 58 sqq.

[8] Variæ, ix. 5. cf. xiii. 43.

[9] Appendix, Part ii. vol. iii.

[10] Scholia ad Pythia, i. 89. cf. i 96, 98. and Argum. Pythia iii. and Pyth. iii. 111. and 134.

[11] Pausanias, viii. xlii. 5. cf. vi. xii. 1. also Anthologia, iv. 141. Ἀδέσποτα cxviii. These ἀναθήματα were the work of Onatas.

[12] Vol. i. p. 194.

iii. By the beginning of the official year, B. C. 406–405.

This year in the decursus of the first Period of the calendar corresponded to 138, Cycle xviii. 2, the proper epoch of which was December 27, B. C. 406. That is, the official year at Syracuse, this year, was beginning at or about the winter solstice. And that such was actually the case, may be proved from Diodorus' account of the capture of Agrigentum by the Carthaginians.

With regard to the year of this capture, Diodorus is apparently at variance with Xenophon; since he dates both the beginning of the siege, and the capture at last, in the year of Callias[f], (which, according to his rule, bore date Jan. 1, B. C. 406,) and Xenophon the year before, as appears from the terms in which he sums up the events of that year, the 25th of the Peloponnesian war, B. C. 407–106[g]: Ὁ ἐνιαυτὸς ἔληγεν, ἐν ᾧ Καρχηδόνιοι ἐς Σικελίαν στρατεύσαντες... εἷλον Ἀκράγαντα λιμῷ, μάχῃ μὲν ἡττηθέντες προσκαθεζόμενοι δὲ ἑπτὰ μῆνας. The years of the war, according to Xenophon as well as to Thucydides, began and ended in the spring. The 25th consequently must have begun in the spring, B. C. 407, and ended in the spring, B. C. 406: and must have been the year of Antigenes more properly than that of Callias. The be-

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years and eight months: according to Aristotle was 18 years. Τῶν δὲ λοιπῶν ἡ περὶ Ἱέρωνα καὶ Γελωνα, περὶ Συρακούσαις. ἔτη δ' οὐδ' αὕτη πολλὰ διέμεινεν, ἀλλὰ τὰ σύμπαντα δυοῖν δέοντα εἴκοσι. Γέλων μὲν γὰρ ἑπτὰ τυραννεύσας, τῷ ὀγδόῳ τὸν βίον ἐτελεύτησεν, δέκα δ' Ἱέρων, Θρασύβουλος δὲ τῷ ἑνδεκάτῳ μηνὶ ἐξέπεσεν[13]. Yet after all there may be no great discrepancy between their respective statements; Aristotle making the sum 18 years, and a month or two more, which he has left indefinite, Diodorus 18 years and 7 or 8 months: and either of these, reckoned back from November or December B. C. 466, (the actual date of the end of the reign of Thrasybulus,) would bring us to B. C. 485, which is the generally received date of the beginning of that of Gelo *.

[f] xiii. 80–91.

[g] Hellenica, i. v. § 21.

* The reign of Gelo at Gela was a different thing from that at Syracuse; and is commonly dated Ol. lxxii. 2, B. C. 491; though Pausanias in mistake, vi. ix. 2, has assigned this date as the epoch of his reign at Syracuse: cf. Dionysius Halicarn. Ant. Rom. vii. 1: and our Origines Kal. Italicæ, ii. 196. Herodotus, vii. 154–156. cf. also the Marmor Parium, Epocha liv: lvi: Euseb. Chron. Arm. Lat. Ol. lxxvi. 4. Jerome, Chron., Ol. lxxiii. 2: lxxvi. 2: lxxv. 2: and Mr. Clinton. ad ann. 491, 485, 467, 466. and pag. 267=324.

[13] Politica, v. 12. 162. 1.

ginning of the next year was characterized by an eclipse of the moon, mentioned by Xenophon[h]; which must have been that of April 15, 8.30 P. M. (Paris), B. C. 406.

This part of the chronology and history of Diodorus will require to be more particularly treated of, for the illustration of the Carthaginian calendar, if we are permitted to arrive at that part of our work; and we hope then to see reason to defer to his authority in the account of these events rather than to that of Xenophon. We will assume therefore that the year of the capture of Agrigentum was B. C. 406, not B. C. 407.

Now the siege, as it may be shewn, began in April or May; and when it had been going on some time, mention is made of the breaking out of a pestilence in the besieging army[i]; which is a significant intimation that the autumnal season had arrived: and then, of the setting in of winter (*τοῦ χειμῶνος ἐνεστηκότος ἤδη*), when the besiegers were suffering from want[k]. And soon after, the official year of the Syracusan *Στρατηγοὶ*, who had been sent to the relief of the city, is represented as drawing to its close; in consequence of which they were under the necessity of returning to Syracuse: the city still holding out, at the time of their departure, but being evacuated by its inhabitants a few days later[l], and so coming into the power of the Carthaginians.

Now the time when they actually got possession of it at last, according to Diodorus, was a little before the winter solstice: *Ἰμίλκας δὲ ὀκτὼ μῆνας πολιορκήσας τὴν πόλιν, καὶ μικρὸν πρὸ τῆς χειμερινῆς τροπῆς κυριεύσας αὐτῆς*[m]. And Diodorus' date of that natural phenomenon, (as indeed that of any other of the cardinal points of the year,) being the Metonic; it follows from this fact that the city must have fallen into the hands of the Carthaginians not long before December 25, the Metonic date of the winter solstice, (which was also its true date this year) B. C. 406: and consequently that the official year of the Syracusans the same year must have begun at or near the same day too.

Now B. C. 406 answered to Cycle xviii. 1. The first month that year bore date Jan. 7, the twelfth or last, November 27, and the first month of the next year, Cycle xviii. 2, December 27; only two days later than December 25, the solstitial date There can be no question that, if the Syracusan prætors, for the reason assigned by Diodorus, (viz. because their year was drawing to an end, and they durst not exceed its limits by remaining on the spot,) withdrew their forces in the midst of the siege, it must have been some time in this last month, between November 27 and December 27. We may take it for granted at least that they would think it incumbent upon them to be again at Syracuse, by the stated time of the ἀρχαιρεσίαι, the 15th of the last month; and therefore, as the distance from Agrigentum to Syracuse even in a right line was not less than 100 Roman miles, eight or nine days' march, they would not set out later than the beginning of December.

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[h] Hellenica, i. vi. 1.

[i] Diodor. xiii, 80, 81, 85, 86.

[k] Ibid. 88.

[l] Ibid. 88, 89.

[m] Ibid 91.

The city was evacuated soon after their departure. We see then with how much correctness its final occupation by the Carthaginians might be dated a little before the winter solstice. The beginning of the siege is hereby determined also. For its duration, according to Diodorus, having been *eight* months, and according to Xenophon, *seven;* let us assume that it lasted *seven* complete. Since then it came to an end about the middle of the twelfth month, Cycle xviii. 1, December 11, B.C. 406, it must have begun about the middle of the fifth month, May 19, the same year.

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iv. By the date of the death of Euripides, and of the birthday of Dionysius the Elder, and his assumption of the tyranny.

This question of the date of the capture of Agrigentum, and of the epoch of the official year at Syracuse, Cycle xviii. 2 of the calendar for the time being, B. C. 406–405, is connected with another, of still greater interest and importance in Syracusan history; that of the assumption of the tyranny by Dionysius the Elder, which coincided with the same time and occasion in general, as appears from the testimony of Diodorus[n]. But this too is connected with another, of which we must first give some account.

[n] xiii. 91–96.

It has been handed down as a remarkable coincidence, that Dionysius the Elder was born on the day of the death of Euripides; the ultimate authority for it having been the historian Timæus: Οἷον ἦν, says Plutarch[o], *τὸ περὶ τῆς Εὐριπίδου γενέσεως καὶ τελευτῆς, γενομένου μὲν ἡμέρᾳ καθ' ἣν οἱ Ἕλληνες ἐναυμάχουν ἐν Σαλαμῖνι πρὸς τὸν Μῆδον, ἀποθανόντος δὲ καθ' ἣν ἐγεννήθη Διονύσιος ὁ πρεσβύτερος τῶν ἐν Σικελίᾳ τυράννων· ἅμα τῆς τύχης, ὡς Τιμαῖος ἔφη, τὸν μιμητὴν ἐξαγούσης τῶν τραγικῶν παθῶν καὶ τὸν ἀγωνιστὴν ἐπεισαγούσης.* Now to suppose that Dionysius was really born on the day of the death of Euripides, as we shall see by and by, would be absurd; but to suppose that Euripides might have died on the birthday of Dionysius, or that Dionysius might have attained to the tyranny on the day of the death of Euripides and on his own birthday too, would be a curious and remarkable coincidence, but could not be considered *per se* impossible or absurd.

Chronologers appear to be of opinion that if there was any foundation in fact for the assertion of this coincidence, it must have been the circumstance that the day of the death of Euripides, and that of the assumption of the tyranny by Dionysius, were the same: and they have consequently construed the allusion to the birthday of Dionysius, in the above passage, of his *Natale regni*. But this construction, though seemingly required by the necessity of the case, is incompatible with the use of *ἐγεννήθη* absolutely; which could never have been intended of any thing but a person's being *born*, in the common sense of the phrase. Nor is it necessary after all that we should do violence to the plain meaning of terms in Greek, to save an historical difficulty—if it be only allowed to have been a possible contingency, that Dionysius might have attained to the tyranny on his own birthday, and Euripides also might have died on the same day: which in our opinion is the real construction of the kind and degree of coincidence in this instance, to the fact of which the authority of Timæus appears to have been given.

With regard then to the death of Euripides, according to Eratosthenes[p] he died at 75 years of age; and if, as the tradition of antiquity has handed it down, he was born on the day of the battle of Salamis, Boëdromion 20, October 1, B. C. 480, he would be 74 complete Boëdromion 20, Sept. 15, B. C. 406. The precise time of his death however may best be collected from the Ranæ of Aristophanes. He was dead when that play was acted[r], and it was acted at the Lenæa, in the year of Callias, March 3–5, B. C. 405. It appears also from the same play[t] that Sophocles too was dead before the same time: and in the argument of the Œdipus Coloneus, a passage is quoted from the Musæ of Phrynichus, exhibited at these same Lenæa along with the Ranæ, which recognises *his* death as a recent event. The deaths of both are mentioned historically by Diodorus likewise[v], as nearly contemporaneous, and both in the same year as that of the assumption of the tyranny by Dionysius[x].

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[o] Symposiaca, viii. Problema, i. cap. 1.

[p] Vita, apud Elmsleium, (Bacchæ of Euripides,) p. 193. Cf. Diog. Laert. ii. v. § xxiv. 45.

It is asserted however by Thomas Magister[y], that Sophocles outlived Euripides long enough to hear of his death; and in consequence of it to put on mourning himself, and not to allow his actors to appear on the stage wearing the usual decoration of the crown or garland. If this statement may be depended on, (and it seems too remarkable not to have been founded in fact *,) it proves that the news of the death of Euripides must have been received at Athens just before the usual season of one of the Διδασκαλίαι, or contests of the dramatic poets, of which there were *three* every year; one at the Διονύσια ἐν ἀγροῖς, or ἐν Πειραεῖ, another at the Διονύσια ἐν λίμναις, or Lenæa, a third at the Διονύσια ἐν ἄστει: the first in the month Posideon, the second in the month Anthesterion, the third in the month Elaphebolion. Now it could not have been just before the Lenæa, when not only Euripides but Sophocles was already dead; much less before the Dionysia ἐν ἄστει. It must therefore have been just before the Dionysia ἐν ἀγροῖς, last before the Lenæa B. C. 405.

Now the stated month of these Dionysia was certainly Posideon[z]; and though the day of the month on which they

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* Cf. Cicero, Brutus, i. 3: Etenim si in leviorum artium studio memoriæ proditum est, poëtas nobiles poëtarum æqualium morte doluisse, &c.

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[r] Verse 67 sqq.

[t] Verse 76–79. 786–794.

[v] xiii. 103. (80.) 104. cf. also Suidas, in Σοφοκλῆς.

[x] xiii. 96.

[y] Vita Euripidis. Cf. Diog. Laert. ii. v. § xxiii. 44.

[z] Theophrastus, Ἀδολεσχία.

began has not been handed down in terms, and Corsini[a] appears to have fixed it to the third, we may probably see reason ourselves hereafter to fix it to the 27th; i. e. to conclude that the Dionysia *ἐν ἀγροῖς* began every year on the 27th of Posideon, though they might continue over the 28th and even the 29th. B. C. 406 corresponded to Period i. 27 of the Metonic correction; and that being an intercalary year, the stated date of the Dionysia *ἐν ἀγροῖς* would be the 27th–29th of Posideon A, Dec. 20-22 inclusive, B. C. 406. The death of Euripides is said to have taken place at or near to *Βορμίσκος*, on the Sinus Strymonicus; and the distance from that quarter to Athens, by land, having been not less than 300 Roman miles direct, the news of his death could not have been carried from thence to Athens, especially in the winter season, in less than ten days' time *.

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* Suidas: *Εὐριπίδης . . . Ἐν δὲ τῇ διαβάσει Ξέρξου ἐκυοφορεῖτο ὑπὸ τῆς μητρὸς, καὶ ἐτέχθη καθ' ἣν ἡμέραν Ἕλληνες ἐτρέψαντο τοὺς Πέρσας*: and in this statement concerning his birth most of the testimonies of antiquity concur with Suidas[1]. They are not equally agreed about his age at his death; which must in reality have been 74 or 75, but by the Parian chronicle[2] is put at 78, and by Philochorus seems to have been made not much more than 70[3].

The Parian chronicle[4] dates the death of Euripides *ἐπ' Ἀντιγένους*, B.C. 407; and that of Sophocles[5] the next year, *ἐπὶ Καλλίου*, B. C. 406; and the beginning of the tyranny of Dionysius[6], B. C. 408, *ἐπ' Εὐκτήμονος*. The deaths of Euripides and Sophocles are both dated by Eusebius[7] Ol. 92. 3; by the Chronicon Paschale[8] Ol. 94. 3; by Apollodorus[9] Ol. 93. 3. B. C. 406–405: which last date, as we have seen, is entirely correct. That both these deaths happened very close to each other, does not seem to admit of a question; and that Sophocles survived Euripides by some interval of time, more or less, appears to be equally well established.

With regard to the death of Euripides in particular, it is agreed that it happened in Macedonia, after his retirement to the court of Archelaus; and that he came to a tragical end, having been torn to pieces by the king's hounds, or so mangled by them as to have died shortly after of the injuries thus received: and it has been added too that it was not by accident that he

[a] Fasti Attici, ii. 325. 383. Diss. xiii.

[1] Vita apud Elmsleium: Plutarch, Symp. viii. i. 1. cf. Diogenes Laertius, ii. v. xxiv. 45. cf. also Anaxagoras, ii. 7.

[2] Epoch lxiv.

[3] Vita, apud Elmsleium: Thomas Magister in vita: Moschopulus in vita.

[4] Epocha lxiv.

[5] Epocha lxv.

[6] Epocha lxiii.

[7] Chron. Arm. Lat. ii. 217. cf. Jerome, Ol. 93. 1.

[8] Pag. 312 D.

[9] Apud Diodorum, xiii. 103. cf. Suidas in voce.

fell in with these dogs, but that they were purposely set upon him; though by whose instigation, and from what motive, has been variously represented. Ἐτελεύτησε δὲ, says Suidas, in voce, *ὑπὸ ἐπιβουλῆς Ἀρριδαίου τοῦ Μακεδόνος καὶ Κρατεύα τοῦ Θετταλοῦ, ποιητῶν ὄντων, καὶ φθονήσαντων αὐτῷ*[10], *πεισάντων τε τὸν βασιλέως οἰκέτην, τοὔνομα Λυσίμαχον, . . . τοὺς βασιλέως οὓς αὐτὸς ἔτρεφε κύνας ἐπαφεῖναι αὐτῷ*[11]. One thing only is certain, that Archelaus himself was entirely innocent of his death, howsoever effected; of whose regard for him while living, and regret for him after his death, Solinus observes[12]: Hic Archelaus in tantum litterarum mire amator fuit ut Euripidi tragico consiliorum summam concrederet; cujus suprema non contentus prosequi sumtu funeris, crines tonsus est, et mœrorem quem animo conceperat vultu publicavit.

*Εἰσόκε σοὶ δαίμων Εὐριπίδη εὗρεν ὄλεθρον,*
*ἀμφὶ βίου στυγνῶν ἀντιάσαντι κυνῶν*[13].

*Αἰσχύλῳ γράφοντι ἐπιπέπτωκε χελώνη,*
*Σοφοκλῆς ῥᾶγα φαγὼν σταφυλῆς πνιγεὶς τέθνηκε,*
*κύνες οἱ κατὰ Θράκην Εὐριπίδην ἔτρωγον*[14].

Utque cothurnatum vatem tutela Dianæ,
Dilanient vigilum te quoque turba canum[15]—

the explanation of which allusion is that these dogs were set upon him as he was going to, or returning from, the temple of Diana, to which he was in the habit of resorting, to study the works of Heraclitus *ὁ σκοτεινός*.

The place where he met with his death is called by Stephanus Byz. *Βορμίσκος· χωρίον Μακεδονίας, ἐν ᾧ κυνοσπάρακτος γέγονεν Εὐριπίδης . . . ἐκ δὲ τῶν δηγμάτων ἀρρωστήσαντα αὐτὸν ἀποθανεῖν.* The place where he was buried, the ancients call Arethusa: In Macedonia, non procul Euripidis poetæ sepulcro duo rivi confluunt, alter saluberrimi potus, alter mortiferi[16]—Non minus in Macedonia, quo loci sepultus est Euripides, dextra ac sinistra monumenti advenientes duo rivi concurrunt in unum, e quibus ad unum accumbentes viatores pransitare solent, propter aquæ bonitatem; ad rivum autem, qui est ex altera parte monumenti, nemo accedit, quod mortiferam aquam dicitur habere[17]—Acontisma: cui proxima Arethusa convallis et statio, in qua visitur Euripidis sepulcrum, tragœdiarum sublimitate conspicui[18].

*Οὔ σε κυνῶν γένος εἷλ' Εὐριπίδη, οὐδὲ γυναικὸς*
*οἶστρος, τὸν σκοτίης Κυπρίδος ἀλλότριον,*
*ἀλλ' Ἀΐδης καὶ γῆρας· ὑπαὶ Μακέτῃ δ' Ἀρεθούσῃ*
*κεῖσαι ἑταιρείῃ τίμιος Ἀρκέλεω.*

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[10] Cf. A. Gellius, xv. 20.

[11] Cf. Parœmiographi Græci, 96, e Cod. Bodl. 782. Προμέρου Κύνες. Also, Prov. Diogen. Cent. vii. 52. p. 215.

[12] ix. 17.

[13] Hermesianax, apud Athenæum, xiii. 71.

[14] Stobæus, Florilegium, iii. 281: xcviii. 9. Sotades. Cf. Pausanias, ii. ii. 2. A. Gellius, xv. 20. Valerius Max. ix. xii. Ext. 4.

[15] Ovid, Ibis, 595.

[16] Cf. Hyginus, Fabb. ccxlvii. Qui a canibus consumpti sunt.

[16] Pliny, H. N. xxxi. 19.

[17] Vitruvius, viii 3. p. 238.

[18] Ammianus Marc. xxvii. 4. 109.

Now, if we may assume that the prætors, who commanded the forces sent to the relief of Agrigentum, set out on their return to Syracuse on or about the first of the last month of their official year, Cycle xviii. 1, Nov. 27, B. C. 406; it would not take them more than eight or nine days to make the march home: and it is clear, from the accounts of Diodorus[b], that their arrival was speedily followed by *their* degradation, and the election of others, (of whom Dionysius himself was one[c],) before the actual expiration of their term of office, and therefore, as may reasonably be presumed, on the regular day of the ἀρχαιρεσίαι, the 15th of the last month, Dec. 11, B. C. 406. This election of Dionysius, if made at this time, would be so far legal and constitutional; but, as it was the first step towards his usurpation of the tyranny, and the be-

σὸν δ' οὐ τοῦτον ἐγὼ τίθεμαι τάφον, ἀλλὰ τὰ Βάκχου
  εἵματα, καὶ σκηνὰς σῇ ὀπὶ πειθομένας[19].

And here, it is upon record, his sepulchre was some time or other struck by lightning—

Ἁ Μακετίς σε κέκευθε τάφου κόνις· ἀλλὰ πυρωθεὶς
  Ζανὶ κεραυνείῳ γαῖαν ἀπημφιάσω.
τρὶς γὰρ ἐπαστράψας Εὐριπίδῃ ἐκ Διὸς αἰθὴρ
  ἥγνισε τὰν θνατὰν σώματος ἱστορίαν[20].

Λέγεται δὲ καὶ τῶν λειψάνων αὐτοῦ κομισθέντων οἴκαδε, κεραυνὸν εἰς τὸν τάφον κατασκῆψαι· τοῦτο δὲ οὐ ῥᾳδίως ἑτέρῳ τινὶ τῶν ἐπιφανῶν πλὴν Εὐριπίδῃ συμπεσεῖν ὕστερον, τελευτήσαντι καὶ ταφέντι τῆς Μακεδονίας περὶ Ἀρέθουσαν[21]. Suidas tells us[22] his bones were removed to Pella; and A. Gellius[23], that when the Athenians applied for permission to remove them home, the Macedonians refused to part with them. There was consequently nothing to commemorate his death in his own country but a Kenotaph[24]—

Μνᾶμα μὲν Ἑλλὰς ἅπασ' Εὐριπίδου, ὀστέα δ' ἴσχει
  γῆ Μακεδών· τῇ γὰρ δέξατο τέρμα βίου.
πατρὶς δ' Ἑλλάδος Ἑλλὰς Ἀθῆναι· πλεῖστα δὲ Μούσαις
  τέρψας, ἐκ πολλῶν καὶ τὸν ἔπαινον ἔχει[25].

Euripides was of the Tribe of Kecrops, and of the Deme of Φλυία, or Φλυεία[26].

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[b] xiii. 91.

[c] Ib. 92.

[19] Anthologia, ii. 226. Addæus, viii.

[20] Ibid. ii. 144. Bianor, xiii. cf. iv. 231. Ἀδέσποτα, DXXXVI.

[21] Plutarch, Lycurgus, xxxi.

[22] In voce: cf. Anthologia, iv. 230, 231. Ἀδέσποτα, DXXXV.

[23] xv. 20.

[24] Pausanias, i. ii. 2. cf. the Vita, apud Elmsleium.

[25] Anthologia, i. 102. Thucydides, i. cf. the Vita, ap. Elms.

[26] Harpocration, Φλυία: Photii Lex. Φλυεία: Etym. M. Φλυεία: Suidas, Φλυεία.

ginning of a series of proceedings which shortly after issued out in that result[d]; it is from this first election, in conjunction with the usual number of colleagues, not from the second, by which he was appointed Στρατηγὸς αὐτοκράτωρ, *extra ordinem*, and over the heads not only of his predecessors, but also of his colleagues, that we must date the commencement of his tyranny. And the day having been so probably determined to the regular date of the ἀρχαιρεσίαι, the 15th of the last month, Cycle xviii. 1, Dec. 11, B. C. 406, if the same day was both the birthday of Dionysius, and the very day on which he attained to the legal age of the prætorship itself*, and the day of the death of Euripides also, we shall thus see that there must have been a good foundation for the tradition which appears to have handed down this coincidence as matter of fact; and we shall better comprehend the point of Timæus' observation upon it, that one and the same day had both withdrawn from the stage of public life the greatest master of fictitious Tragedy, and ushered upon it the greatest actor in real.

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* With respect to the probable legal age of the Prætorship; the case of Aratus[1] is decisive that this age, at Sikyon or at Corinth, could not have been later in his time than 25 complete; and it might have been as early as 24 complete: and if this was the rule at Sikyon or Corinth, the same rule might have obtained at Syracuse also.

It is the tradition of antiquity that Dionysius in particular usurped the tyranny at 25 years of age; which must mean, under the circumstances of the case, that he was first elected prætor at that age: and that would imply that the legal or constitutional age of the prætorship at Syracuse was 25 (i. e. most probably 24 complete). Duodequadraginta annos, observes Cicero[2], tyrannus Syracusanorum fuit Dionysius, cum v et xx natus annos dominatum occupavisset. Polybius indeed, in one of his fragments[3], where he is speaking of some of the criticisms of Timæus on the statements of Ephorus, has the following remark: Ἐφόρου δὲ πάλιν ὅτ᾽ ἂν καταψεύδηται, φάσκων λέγειν αὐτὸν ὅτι Διονύσιος ὁ πρεσβύτερος παρελάμβανε τὴν ἀρχὴν ἐτῶν εἴκοσι τριῶν ὑπάρχων, βασιλεύσαι δὲ τετταράκοντα καὶ δύο, μεταλλάξαι δὲ τὸν βίον προσλαβὼν τοῖς ἑξήκοντα τρία. The sum of 23 and 42 being 65, if these numbers for the length of the reign of Dionysius, and for his age when he began to reign, were correct, the length of his life ought to have been represented at 60 + 5, not 60 + 3. And this Polybius seems to have considered so obviously a mere oversight, that to object to Ephorus that he supposed Dionysius to have lived only to be 63, instead of 65, was frivolous and captious. Be that however as it may, even this mode of defending Ephorus must imply that he assumed Dionysius to have retained the tyranny 42 years, and to have usurped it at 23 years of age; in both which assumptions there was an error—in the former of four years in excess, 42 instead of 38—in the latter of two in defect, 23 instead of 25. It is certain that Dionysius retained the tyranny from the end of B. C. 406, to March or April, B. C. 367[4]; i. e. 38 years and

[d] Diodorus, xiii. 92-96. cf. 90. Also, Aristotle, Politica, iii. 15: v. 6.

[1] Supra, 374. note.

[2] Tusculanæ, v. 20, 57.

[3] xii. post cap. xxiii.

[4] Supra, xxx. 84.

Between this election of Dionysius to the regular office of prætor, and his appointment to the office of *Στρατηγὸς αὐτοκράτωρ,* Diodorus has nothing on record except an application of the people of Gela to the people of Syracuse for additional assistance, and Dionysius' mission with fresh forces both

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three or four months[5]. Consequently, if he was 23 years of age when he usurped it, he could have been only 61 at his death; if he was 65 at his death, he must have usurped the tyranny at 27; if he was 63, at 25. And this last appears to have been the truth.

With respect to the year; it must be clear from Diodorus' arrangements that he considered the beginning of the tyranny of Dionysius, dated whether from his first election, to the office of Prætor *ordinarius,* or from his second, to that of Στρατηγὸς αὐτοκράτωρ, an event of the year of Callias, which according to his rule entered Jan. 1, B. C. 406[6]; not of the year of Alexias, which entered, by the same rule of reckoning, Jan. 1, B. C. 405[7]. And his account of every thing before and up to this consummation, any way connected with it, is related between the two[8]. Some scattered notices of the personal history of Dionysius occur in Cicero[9]; but they throw no light on this question, except that from one of them[10], if it can be depended on, it must be inferred that his assumption of the tyranny was not much later than that time in the natural year, when such a thing might have occurred as a swarm of bees. Instances are on record of the swarming of bees in Italy as late as November or December[11]: and the same thing was just as possible in Sicily. But this swarm need not have happened much later than the usual time of such things in the summer, B. C. 406; the last before the usurpation of the tyranny by Dionysius.

[5] Cf. Diodorus, xiii. 96: xv. 73: Cicero, De Natura Deorum, iii. 33, 81: Marmor Parium, Epocha lxiii: lxxv: Valerius Maximus, ix. xiii. Externa, 4. Also, Euseb. Chron. Arm. Lat. ii. 221, Olymp. cii. 2: Jerome, in Chron. Olymp. ciii. 1: Dionys. Hal. Ant. Rom. vii. 1, 2: Helladius, apud Phot. Cod. 279. 530. 30. Dionysius the elder was dead, and the younger reigning in his stead, at the date of the Archidamus of Isocrates (B. C. 366), § 49 50. 73. cf. Hellenica, vii. i. 28: iv. 12. Cornelius Nepos (Dion 3) allows 50 years for the joint reigns of both: as also Theopompus (Diodorus, xvi. 71. cf. 31. 11), and Plutarch, Dion, xxviii. See supra, page 88, Art. xxxvii.

[6] xiii. 80.

[7] xiii. 104.

[8] xiii. 91–96.

[9] Tusculanæ, v. 20, 57: 21, 62: De Divin. i. 20, 39: De Officiis, ii. 29: 25.

[10] De Divin. i. 33, 73. cf. ii. 31, 67.

[11] Origines Kal. Italicæ, iii. 275, 276. 317.

horse and foot accordingly[e]; which, as the event shews, was the very thing necessary to enable him to realise his designs on the tyranny. And this application having been made soon after his election, and the occasion being urgent, and the distance from Syracuse to Gela in a right line not being more than 60 Roman miles, and Dionysius himself, as Diodorus tells us[e], both in going thither and in returning to Syracuse, having travelled *συντόμως*, it is evidently possible that, supposing him to have been elected on the 15th of the last month, Cycle xviii. 1, Dec. 11, B. C. 406—every thing, between that election and his appointment to the office of *Στρατηγὸς αὐτοκράτωρ*, both at Gela and at Syracuse[e], might have come to pass within the next eleven or twelve days, from the 15th to the 26th or 27th of the last month, Dec. 11 to Dec. 22 or 23.

Now, the most remarkable circumstance in Diodorus' account of this appointment at last, is, that, as *that* took place the day after Dionysius' return from Gela, so *this* return, the day before, took place on some stated holiday in the Syracusan calendar; and so critically that the people were actually breaking up from the theatre, where they had been witnessing a show (or *θέα*) of some kind, at the time of his arrival itself[f]. Diodorus has not called this *θέα*, going on at the time, the *Διονύσια*, in the sense of the dramatic or scenic representations which are commonly to be understood by that term; and yet, from its having taken place in the theatre, it seems to have been something of that kind. Now we hope to shew by and by that, from the time of the Olympic institution of Pelops, if not from an earlier date, the ancient Greeks had a stated observance, under the name of Cronia, attached to the Epagomenæ of the equable year; which many of them retained *mutatis mutandis* in their lunar calendar, and out of which, among the Athenians in particular, the institution of the *Διονύσια ἐν ἀγροῖς* itself ultimately took its rise. The regular date of the first of Thoth, at the epoch of the third Type of the Hellenic octaëteric correction, having been Jan. 7, B. C. 542, the regular date of this observance, at the same time, the first of the Epagomenæ, must have been Jan. 2; and Jan. 7 being treated at this time as the proper date of the first month of the new lunar calendar, and Dec. 8 as that of the last, the 26th of this last month must have been assumed as the stated date, in the new lunar calendar, of the Cronian observance, attached to the first Epagomene in the old solar calendar. On this principle the date of the Syracusan Cronia, Cycle xviii. 1, of their lunar calendar, would be the 26th of the xiith month, Dec. 22, B. C. 406; and if they lasted five days in the lunar calendar, as they had done in the old equable calendar, the Julian dates of the Cronian feriæ B. C. 406 would be Dec. 22–26 inclusive. And on one of these feriæ, not earlier than the first, nor later than the last, Dionysius must have returned from his mission to Gela; and the day after, not earlier than Dec. 23, nor later than Dec. 27 (the first of the first month, Cycle xviii. 2,) must have been elected Στρατηγὸς αὐτοκράτωρ. An election speedily followed by his usurpation of the tyranny[g].

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[e] xiii. 93. [f] Ibid. 94.

We may therefore arrange the chronology of these events, with great probability, as follows:

*Chronology of events, from the beginning of the siege of Agrigentum to the appointment of Dionysius to the αὐτοκρατία, at Syracuse, B. C. 406, both in the Attic calendar and the Syracusan.*

| | Attic Calendar. | Syrac. Calendar. |
|---|---|---|
| | Period i. 26. 27. | Cycle xviii. 1. |
| Beginning of the siege of Agrigentum, about May 19 .......... | Thargelion 19. | 15th of vth m. |
| Return of the Syracusan prætors, about Nov. 27 .............. | Posideon A, 4. | 1st of xiith. |
| Degradation of these prætors, and election of Dionysius, as one among others, in their stead .. | Posideon A, 18. | 15th of xiith. |
| Same day death of Euripides at Bormiscus in Macedonia, Dec. 11, B. C. 406. | | |
| Mission of Dionysius to Gela, circa Dec. 14................ | Posideon A, 21. | 18th of xiith. |

[Arrival

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[g] Diodorus, xiii. 94–96.

| | | |
|---|---|---|
| Arrival of the news of the death of Euripides at Athens, circa Dec. 21 .................... | Posideon A, 28. | 25th of xiith m. |
| First of the Cronian feriæ at Syracuse, Dec. 22 ................ | Posideon A, 29. | 26th of xiith. |
| Date of the return of Dionysius from Gela. | | |
| Appointment of Dionysius Στρατηγὸς αὐτοκράτωρ, Dec. 23........ | Posideon A, 30*. | 27th of xiith. |

### SECTION VII.—*On the Metonic Correction of the Octaëteric Cycle at Syracuse, and on the change in the beginning of the year from the winter solstice to the summer solstice.*

The first type therefore of the lunar correction at Syracuse having continued in use as late as B. C. 406, we may take it for granted it would not be laid aside before the expiration of its first cyclical period, B. C. 382. When that time however arrived, the people of Syracuse would have to determine whether they should retain the original correction for another period, or substitute the Metonic in its stead; as others, among their contemporaries, might be doing. It would be probable too *a priori* that, if they decided on the former, they would retain also the old beginning of the year; but if they determined on the latter, though it does not necessarily follow that they would also change the beginning of the year, yet, as that had both been done by many before them, and was done at this very time by many of their contemporaries, no one could say beforehand that it would not be done by the Syracusans also*.

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* The actual day of this appointment cannot be assigned, unless we could also assign the date of the day before, that of the *θέα* going on in the theatre at the time of the return from Gela—which we have supposed to have been one of the Cronian feriæ at Syracuse. Yet we cannot help thinking it was either Dec. 23, the last day of Posideon A, or Dec. 24, the first of Posideon B, in the Attic calendar of the time being. Xenophon, Hellenica, ii. ii. 24, has a statement which is important on this question: *Καὶ ὁ ἐνιαυτὸς ἔληγεν, ἐν ᾧ μεσοῦντι Διονύσιος ὁ Ἑρμοκράτους Συρακούσιος ἐτυράννησε*: and that he means by this year, B. C. 406—appears from his subjoining that the Carthaginians just before had reduced Agrigentum *σπάνει σίτου.* It is very unusual to find a specification of this kind (*ἐνιαυτὸς ἐν ᾧ μεσοῦντι*) in Xenophon; and it appears to us to have been due in this instance to his knowledge of the fact that the actual assumption of the tyranny by Dionysius fell out so critically at the very end of the sixth month in the Attic year, as to be almost exactly at the middle of the year: and that would be the case, if it happened either on the 30th of Posideon A, Dec. 23, or the first of Posideon B, Dec. 24, B. C. 406.

We are able however to shew that the alternative, on which they actually resolved, must have been that of substituting the Metonic for the old octaëteric cycle; and, along with this change in the nature of the calendar—the transfer of the beginning of the year also, from its original place in the natural year, the middle of winter, to the opposite quarter, the middle of summer. A fact has been left on record, in Plutarch's life of Dion, which leaves no doubt that, when it happened, the official year was beginning at midsummer; and therefore must some time or other have been shifted from the middle of winter to the middle of summer.

The people of Syracuse, on the occasion in question, were preparing to hold their *ἀρχαιρεσίαι*, comitia, or elections, but were prevented from doing so by a series of bad weather—'Εκκλησιάζουσι δ' αὐτοῖς ἐπὶ νέαις ἄρχαις, θέρους μεσοῦντος, ἐξαί-

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* It is necessary indeed to observe that, whatsoever was done with the calendar at this time, B. C. 382, (which fell out in the 24th year of the tyranny of Dionysius, dated from the end of B. C. 406 or the beginning of B. C. 405,) it must have been the doing of Dionysius, not of the people of Syracuse. But this is only the better calculated to explain why the head of the calendar might have been transferred to the summer solstice, and attached in the first instance to such a date as that of July 4, B. C. 382—which was the date of the first of Hecatombæon in the Attic calendar of the time being. Dionysius was much more likely to have been actuated by such a motive as that of modelling his own Metonic correction on the Attic, than the people of Syracuse. Moreover, as we meet with evidence, lower down in the history of this Syracusan calendar, that, notwithstanding this fact of its beginning having been transferred *once* before from the winter solstice to the summer solstice, it must some time or other have been transferred again to the autumnal equinox, in explanation of that subsequent change too no better reason perhaps need be assigned, than this distinction itself; viz. That the former change, which fixed the calendar to midsummer, was the doing of Dionysius,—the second, which transferred it to the autumnal equinox, was the work of the Syracusans themselves, and probably intended, as we shall see by and by, to assimilate their calendar to that of the rest of the Siciliot Greeks, or of the most influential among them.

*σιοι βρονταὶ καὶ διοσημεῖαι πονηραὶ συνέβαινον ἐφ' ἡμέρας δεκαπέντε συνεχῶς, ἀνιστᾶσαι τὸν δῆμον, ἀπὸ δεισιδαιμονίας κωλυόμενον ἑτέρους ἀποδεῖξαι στρατηγούς*[e]: though, at the end of that time, they appear to have been completed: Ἐπεὶ δὲ, *φυλάξαντες εὐδίαν σταθερὰν, οἱ δημαγωγοὶ συνετέλουν τὰς ἀρχαιρεσίας, κ᾽, τ. λ.*

There can be no doubt that the general rule of the *ἀρχαιρεσίαι* among the Greeks was to have them some time in the last month of their civil year; though on what particular day may be doubtful, and might be different in different places. We infer from the preceding account that it was usual at Syracuse to hold them on the 15th of the month; and that in the previous instance, having been put off fifteen days successively, beginning with the fifteenth, they were completed at last only on the 30th of the month. The most observable circumstance is that these elections, *ἐπὶ νέαις ἀρχαῖς*, as Plutarch expresses it, were going on *θέρους μεσοῦντος*, i. e. at midsummer; which never could have been the case had the calendar been still bearing date, as at first, in the opposite quarter of the year.

There can be no uncertainty about the year, which both Plutarch[f] and Diodorus[g] determine to have been the next after the expedition of Dion: and this is determined by the date of the eclipse, as he was setting out from Zakynthus, on his voyage to Sicily, August 9, B. C. 357[h]. Now, B. C. 382, with the ingress of the second cycle of 160 years, the epoch of the calendar would require to be raised from January 7 to January 8, and that of every other month in proportion round the year. And supposing this correction to have been administered, the epoch of the seventh month would be July 4; and at this time would be found to be coinciding with the first of Hecatombæon, in the 51st year, cycle iii. 13. of the Metonic correction. If this month was constituted the first of the calendar from this time forward, and the calendar itself ever after was subjected to the Metonic cycle *, B. C. 356, in the decursus of that cycle, would correspond to Period i. 27, cycle ii. 8, when the epoch would fall on June 17, and the first of the last month, the year before, on May 18. And this being the month of the ἀρχαιρεσίαι, and the day of the month, on which they were beginning, the middle one, June 1; we see with how much reason it might have been said that they were going on, θέρους μεσοῦντος, the beginning of which in the Greek Parapegmata was the first or second week in May. It is observable too that, if the elections began on the 15th, and, though put off for fifteen days, were completed at last *within* the month, the month itself must have been a *full* month: and by the rule of the Metonic cycle, in the seventh year, the last two months would both be full, and the first month of the next year would be hollow, and the exemptile day the third of the month.

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[e] Dion, xxxviii.

[f] Ibid. xxix—xxxvii.

[g] Diodorus, xvi. 9–15–20. cf. with Diodor. xvi. 17–20, Plutarch, Dion, xxxix—xlviii. which belong to the same year, that of Elpines, B. C. 356. (Diod. xvi. 15.) but after midsummer, the point of time intended by Plut. Dion, xxxviii. Cornelius Nepos, in his life of Dion, v. 3. supposes him to have entered Syracuse, Post diem tertium quam Siciliam adtigerat. Nor can there be any doubt that he must have done so early in September, B. C. 357. But the first recession of Dionysius did not take place until after the defeat and death of Philistus the next year, B. C. 356: Plutarch, Dion, xxxv: Diodorus, xvi. 16: and then followed the *ἀρχαιρεσίαι*, distinguished by the badness of the weather.

[h] See supra, page 88. xxxvii.

## SECTION VIII.—*Confirmation of the date of the Metonic correction of the Syracusans.*

### i. By the date of the death of Dion, B. C. 354.

The assassination of Dion by Callippus is dated by Cornelius Nepos, quartum post annum quam ex Peloponneso in Siciliam redierat[i]; i. e. B. C. 354: and this is confirmed by Eusebius[k] and Jerome[l], ad Olymp. cvi. 3, and by Diodorus[m], Diotimus, reckoned according to his rule from Jan. 1, B. C. 354, to Jan. 1, B. C. 353; still in the *fourth* year, reckoned from August 9, B. C. 357.

Now with respect to the day of this assassination—Callippus, we are told, purposely made choice of the Κούρεια, or Κόρεια, the feast of Proserpine, among the Sicilian Greeks, and especially the Syracusans; because, in order to allay the suspicions of Dion's wife and sister of the innocency of his intentions, he had only just before taken an oath, in

* Cf. vol. iii, Appendix, Table xiii.

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[i] Vita, x. ad fin.

[k] Chron. Arm. Lat.

[l] In Chronico.

[m] xvi. 31. 28. cf. also the last epoch on the Parian marble.

the name of this goddess and of Demeter, in the temple of the Θεσμοφόροι itself, under circumstances of more than usual solemnity, *Περιβαλόμενος τὴν πορφυρίδα τῆς θεοῦ, καὶ δᾷδα λαβὼν καιομένην*—*Ταῦτα ποιήσας ὁ Κάλλιππος πάντα*, continues Plutarch, *καὶ τὸν ὅρκον ἀπομόσας, οὕτω κατεγέλασε τῶν θεῶν, ὥστε περιμείνας τὴν ἑορτὴν ἧς ὤμοσε θεοῦ, δρᾷ τὸν φόνον ἐν τοῖς Κουρείοις*[n]. Cornelius Nepos calls this Callippus Callicrates[o]; but he agrees with Plutarch in the account which he gives of the time selected for the consummation of this execrable piece of treachery: Mulieres nihilo secius Callicratem in ædem Proserpinæ deducunt, ac jurare cogunt nihil ab illo periculi fore Dioni[p]: notwithstanding which, the very next occasion of the solemnity, and on the holiday, or one of the holidays, of the goddess, Proximo die festo[q], he caused him to be murdered.

But what was the date of the Κούρεια, in the Syracusan calendar? Though it has not been handed down any where in terms, there is reason to conclude it had a stated season, and that, a month after midsummer. No where, among the ancient Greeks, were Demeter and the Κόρη more religiously worshipped than in Sicily. The scene of the Raptus was placed in Sicily[r]; the first gift of the fruits of the ground was supposed to have been made in Sicily[r]; and the whole of Sicily[s], and especially the plain of Enna, in the Leontine territory, and the spring of Kyane, in the Syracusan[t], were sacred to Proserpine: and Diodorus has left it on record that one feast was celebrated annually in Sicily, in honour of Demeter, with great pomp and solemnity, coincident with seed time, and lasting ten days, and another, in the opposite quarter of the year, in honour of the Κόρη, or Proserpine, with equal pomp and solemnity, and probably for the same number of days also.

The precise time in the natural year of the feast in honour of Demeter, is defined as that *ἐν ᾧ τὴν ἀρχὴν ὁ σπόρος τοῦ σίτου λαμβάνει*[v]; and this is a clear designation of the end of October or the beginning of November. That of the feast of the Κόρη, which he calls the *καταγωγὴ τῆς Κόρης*, he defines as τὸν καιρὸν, ἐν ᾧ τὸν τοῦ σίτου καρπὸν τετελεσιουργῆσθαι συνέβαινε: where it is observable there is a various reading of τελεσιουργεῖσθαι, but the reading admitted into the text is τετελεσιουργῆσθαι—and the difference of meaning in these two readings is such, that, while τελεσιουργεῖσθαι would have denoted simply a time when the harvest was approaching to maturity, τετελεσιουργῆσθαι can denote only one when it had already arrived at its maturity, and in fact was past its maturity. It must therefore denote that time in the natural year when the harvest was not only ripe, and ready to be reaped, but in fact cut and reaped. Its precise time in short was that when the new grain of the year's growth was not merely ripe and reaped, but threshed out, and lying on the barn floor, ready to be disposed of in any way; which time, as we learn from Cicero[x], for the climate of Sicily, was midsummer, *æstas summa;* the month next *after,* not next *before,* midsummer—and consequently more properly July, in the Julian calendar, than June.

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[n] Dion, lvi.

[o] Vita, viii, 1.

[p] Ibid. viii. 5.

[q] Ibid. ix. 1.

[r] Diodorus, v. 2, 3.

[s] Schol. ad Nemea, i. 16: Diodor. v. 2.

[t] Diodorus, v. 3,4.

[v] v. 4.

The feast of the Κόρης ἁρπαγὴ was celebrated in the Alexandrine calendar also, as we are told in the Scholia on the Phænomena of Aratus[y]; and as we learn from the same testimony also, in the month Epiphi, and when the sun was in Leo. And these characters of the solemnity in that calendar, as we shewed in our Fasti Catholici[z], could not have coincided annually, unless the stated date of the solemnity itself had been July 24—the last day of Epiphi in the Alexandrine calendar, and the first of the sun in Leo, reckoned from June 23 or 24, the first in Cancer. There can be no doubt that by the Κόρης ἁρπαγὴ of the Alexandrine calendar, and the Κόρης καταγωγὴ of the Sicilian or Syracusan, the same thing was meant; and when the mystical signification of the phrase in either instance comes to be explained, (as we hope it will, in a future part of our work,) it will appear much more probable *a priori,* that a solemnity so called would have been fixed to one of the harvest months in the Alexandrine calendar, Pharmuthi or Pachon, April or May, than to the month of Epiphi or July, except on *one* supposition; viz. that the solemnity itself passed into the

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[x] In Verr. Actio ii. Lib. v. 12, 29. cf. supra page 302.

[y] Ver. 150.

[z] Fasti Catholici, iii. 69 note.

Alexandrine calendar from some other, in which its proper season in the natural year was midsummer, and even its proper date was July 24. And what calendar could this be but the Sicilian; in which the *καταγωγὴ τῆς Κόρης*, or the *Κούρεια,* was one of the most distinctive ceremonies? We have no doubt in fact that this is the true explanation of this Alexandrine ceremony of the *Κόρης ἀπαργὴ*, and its peculiar date; and that it passed into the Alexandrine calendar from the Sicilian, some time when its actual date in the latter was coinciding with July 24 and Epiphi 30.

It is a necessary inference from its Alexandrine date, so derived, that its proper date in its own calendar must have been some one, which was capable *a priori* of coinciding with Epiphi 30, July 24. Assuming therefore that this proper calendar was the Syracusan, and the proper Type of the Syracusan calendar, from B. C. 382, was the Metonic, proposed above; we may infer that the proper date of the *Κούρεια* in the Syracusan calendar must have been the first of the second month, not the first of the first: for the inspection of the Type will shew that there was no year of the cycle in which the first of the first month, or even any day in the first ten days of that month, was capable of falling on July 24; but there were various years in which the first of the second month would do so: in some one of which the date in question must have been transferred from the Syracusan to the Alexandrine calendar.

To apply this conclusion to the date of the death of Dion —the year of this event having been B. C. 354, it corresponded to Period i. 29, Cycle ii. 10 of the first Callippic Period of the Metonic Correction of the Syracusans; in which year the first of the first month bore date June 25, and the 9th of that month having been exemptile, the first of the next month would bear date July 24. This consequently must have been the date of the *Κούρεια* that year; and therefore, if the *Κούρεια* lasted only one day, the date of the death of Dion: if they lasted more than one day, (as it may be inferred from the analogy of the feast of Demeter, at the opposite season of the year, if not from the testimony of Plutarch[a], that they must have done,) though not this day, July 24, yet some day soon after it, and before the end of the month.

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[a] Dion, lvi–lvii.

It is probable therefore that what passed between Callippus and the women of the family of Dion, before the perpetration of this murder, happened some time in the first month of the year, between June 25 and July 24; and possibly on the first day of the year itself. The tyranny of Syracuse was retained by Callippus 13 months[b]; and these 13 months dated from the first of the second month, Period ii. 29, Cycle ii. 10, July 24, B.C. 354—would extend down to the first of the third month, Period ii. 30, Cycle ii. 11, August 11, B.C. 353: some time before which day, and between July 12 and August 11, he must have been expelled from Syracuse by Hipparinus, the son of Dion[bb].

### ii. By the date of the institution of the Ἀμφιπολία at Syracuse.

Dionysius the younger, according to Plutarch[c], recovered possession of Syracuse in the *tenth* year after his expulsion by Dion; according to Diodorus Siculus[d], in the twelfth: and even Plutarch, in another passage of his Life of Timoleon[e], appears to recognise this as the true interval between the first dispossession and the recovery; for he there speaks of *twelve* years, as passed by Dionysius, after his first reign of ten years, and after this first expulsion, in constant wars. In any case he was in possession of Syracuse when Timoleon sailed from Corinth in the year of Eubulus[f], B.C. 345; and though Plutarch[g] implies that he was master of Syracuse within fifty days after he landed in Sicily, yet here also Diodorus steps in to correct his statements, so far at least as to shew that he was not master of Syracuse before the year of Lykiscus[h], B.C. 344, nor Dionysius finally dispossest and sent to Corinth, before that of Pythodotus, B.C. 343[i].

Now Diodorus proceeds to inform us that, from the date of this event, a new æra took its rise at Syracuse, and a new sacerdotal office, by which the reckoning of annual time was ever after kept; under the style and title of the Ἀμφιπολία Διὸς Ὀλυμπίου: *Κατέστησε δὲ καὶ τὴν κατ' ἐνιαυτὸν ἐντιμοτάτην ἀρχὴν, ἣν Ἀμφιπολίαν Διὸς Ὀλυμπίου οἱ Συρακούσιοι καλοῦσι. καὶ ᾑρέθη πρῶτος Ἀμφίπολος Διὸς Ὀλυμπίου Καλλιμένης· καὶ τὸ λοιπὸν διετέλεσαν οἱ Συρακούσιοι τοὺς ἐνιαυτοὺς ἐπιγράφοντες τούτοις τοῖς ἄρχουσι, μέχρι τῶνδε τῶν ἱστοριῶν γραφομένων, καὶ τῆς κατὰ τὴν πολιτείαν ἀλλαγῆς. τῶν γὰρ Ῥωμαίων μεταδόντων τοῖς Σικελιώταις τῆς πολιτείας, ἡ τῶν Ἀμφιπόλων ἀρχὴ ἐταπεινώθη, διαμείνασα ἔτη πλείω τῶν τριακοσίων*[i].

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[b] Diodorus, xvi. 32, 33: 36, 37.

[bb] Diodor. xvi. 36. (32–37.)

[c] Timoleon, i.

[d] xvi. 68. (66.)

[e] xiii. cf. supra, 88. No. xxxvii. note.

[f] Diodorus, xvi. 66–68. Plut. Timoleon, vii. viii. ix. x.

[g] Timoleon, xvi.

[h] xvi. 69.

[i] xvi. 70. cf. Timoleon, xiii. xiv.

No mention is here made of any change in the beginning of the year; from which it is an obvious inference, that the institution of this new office in all probability coincided with the beginning of the year itself: on which supposition (but which only) is it conceivable *a priori* that an institution, which superseded every other civil dignity before in existence, and changed the style of the Fasti, would not change the beginning of the year also. If so, we are able to assign the probable date of the first Ἀμφιπολία; which, if coincident with the first of the first month, in the year of the institution, Period i. 40. Cycle iii. 2, of the Metonic correction, must have been June 24, B.C. 343 *. The date of the final dispossession of Dionysius is hereby determined also; as not later at least, though possibly earlier, than the same day the same year.

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* The name of the individual who was serving this office of Ἀμφίπολος in the year of the action against Verres, or had lately done so, is mentioned by Cicero[1]: Heraclius...qui sacerdos Jovis fuisset, qui honos apud Syracusanos est amplissimus. It appears indeed that he was still in office when Cicero visited Sicily for the purpose of collecting his materials: and the year being B. C. 70, we have shewn in our Origines Kalendariæ Italicæ[2], that he came into Sicily for that purpose by June 14. B. C. 70 corresponded to Per. v. 9 of the Metonic calendar at Syracuse: and if the year still began at the summer solstice, it would begin that year on July 5: twenty-one days at least later than Cicero's arrival in the province.

There is reason however to believe that, some time between B. C. 382, and the siege of Syracuse by Marcellus, B. C. 214–212, or 211, the Syracusans must again have changed the beginning of their year from the summer solstice to the autumnal equinox. The death of Hiero, and the accession of Hieronymus, were later than corn-harvest at least B. C. 215[3]; and Hieronymus having reigned only 13 months[4], the election of prætors,

[i] xvi. 70. cf. Timoleon, xiii. xiv.

[1] ix. in Verrem iv. 61, 137.

[2] iii. 311.

[3] Livy, xxiv. 4. 3. 7, 8: xxxiii. 38.

[4] Polyb. vii. 7, 3. cf. Livy, xxiv. 21.

four days after his assassination[4], would be regular, if the year was now beginning at the autumnal equinox; but not, if it was still beginning at the summer solstice: for the time must have been nearer to the autumnal equinox than midsummer, B. C. 214.

Sicily was assigned to Marcellus soon after these things; and he seems to have sate down to the siege of Syracuse towards the end of that year[5]: the end of the summer quarter at least, or the beginning of the autumnal that year. And there is mention in Livy[6], of a fresh election of prætors, in room of two of the former, just before put to death, which coincided with the time of the arrival of Marcellus, or nearly so, and preceded the beginning of the siege; and consequently would not be much different from the usual time of such an election, if the year was now beginning at the autumnal equinox.

It is not our intention to follow the course of the siege, and to endeavour to fix the chronology of its several particulars, from the time when it began, to the time when it ended. It is agreed that it lasted three years either current or complete[7]; and that having begun in the autumnal quarter of B. C. 214, it was brought to an end by the capture of the city, B. C. 212[8]. It is agreed too that the city was taken at twice; and on the first of these occasions at the time of the feast of the Artemisia, which was going on when that part of the city was surprised[9]. This feast, according to Livy, lasted three days[10]; and the time of this surprisal being determined by the context to the spring of B. C. 212[11], the Artemisia at Syracuse are thereby shewn to have been a feast of the spring; and yet from the allusion to stormy weather, which follows, a day or two subsequent to the capture[12], a feast of the early, rather than the late, spring. But though the principal part of the city was taken at this time, the Achradina, and the Nesus or Insula, still continued to hold out[13]. And the reduction of these might well be prolonged into the autumn, as it is said to have been[14]. And here too, just before the final submission of the

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[4] Livy, xxiv. 21–23.

[5] Cf. Livy, xxiv. 9, 10. 21: Plut. Marcellus, xiii. xiv.: Polyb. viii. 3, 7: 5, 1–9, 12.

[6] xxiv. 24–27. 27–33.

[7] Auctor de Viris, M. Claudius Marcellus: cf. Livy, xxiv. 27–33, 34. (Polyb. viii. 5–9): 39. Cf. 40: xxv. 6, 7: xxv. 23–31.

[8] Cf. Livy, xxv. 3. 5: Vell. Paterculus, ii. 38: Eutropius, iii. 8.

[9] Livy, xxv. 23: Plutarch, Marcellus, xviii.: Polyb. viii. 37: Polyænus, viii. xi. Marcellus: Frontinus, iii iii. 2: Zonaras, ix. v. 425 C.

[10] xxv. 23–31.

[11] xxv. 23. cf. 15.

[12] xxv. 25.

[13] Livy, xxv. 24. 26–31.

[14] Cf. 26, 27: cf. also Silius Italicus, xiv. 580–589. 620, 621. 627–675: cf. also Livy, xxv. 31, where Marcellus speaks of himself as besieging Syracuse, *tertium annum;* and that the year was still U. C. 542, B. C. 212, appears from the first mention of the election of the consuls of U. C. 543, B. C. 211, at the end of that book, xxv. 41, by which time, as it appears from cap. 40 just before, Marcellus

## SECTION IX.—*On the Metonic Calendar of Gela, and the Metonic Calendar of Agrigentum.*

As there is thus reason to conclude that the people of Syracuse, having previously been using the third type of the Octaëteris—B. C. 382, adopted the Metonic correction in its stead, and transferred the beginning of the year from the middle of winter to the middle of summer; so is there that the people of Gela and the people of Agrigentum, having before been using the same calendar as the Syracusans down to B. C. 382, adopted that year in like manner the same Metonic form thereof: with this difference only, that they fixed the beginning of their year to the autumnal equinox, instead of the summer solstice.

An inscription is extant[k], which records a decree of the people of Gela.

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city, an allusion again occurs to the comitia of the year[15], those of B. C. 212, which under the circumstances of the case must have come between the summer solstice and the autumnal equinox, and not between the vernal equinox and the summer solstice: and consequently, like the former, B. C. 214, lead almost directly to the inference that the year was now beginning at the autumnal equinox, not at the summer solstice. In the calendar of Syracuse, supposed to have been the same at this time with that of Gela, B. C. 212 would have corresponded to Period iii. 19: and the stated date of the ingress that year being September 10, the date of the comitial month would have been August 11; and that of the *ἀρχαιρεσίαι,* the 15th of that month, August 25. The submission of the city, to judge from the context of Livy[16], seems to have followed immediately on the ingress of the new prætors, September 10.

[k] Corpus Inscriptionum Græcarum, iii. 590–593. N°. 5475. Cf. the Siciliæ Vett. Inscriptionum Collectio, pag. 78. Classis viii. N°. iii. and Muratorius DCXLII. 1: Corsini F. A. Tom. ii. 418–427. Dissert. xiv. 12. The inscription, though really a monument of Gela, was found at a mountain near Leocata, or Alicata, the ancient Phintias. With respect to its probable age, the editor (Franzius) observes, that, circa Olymp. cxxv. 4. B. C. 277. U. C. 477, during the war of Pyrrhus, Gela was destroyed by Phintias, tyrant of Agrigentum, and its inhabitants transplanted to a new city, of his own name, which he had recently founded. Strabo implies (vi. 2. 34) that they were never after restored to their own city: yet some at least must have returned thither, since Gela is recognised as still in existence, by Cicero, contra Verrem, Actio ii. lib. iii. 43, 103. iv. 33, 73, and by Ptolemy, and in the Tabula Peutingeriana; and Pliny, H. N. iii. 14, distinguishes the Gelani from the Phintienses. The decree at least belongs to the period of its *αὐτονομία*: and if it was not older than B. C. 277, it must at least be older than B.C. 211, when Sicily first became a Roman province.

had not only taken Syracuse, but settled the affairs of Sicily. These consular comitia would be held only one or two months before the kalends of January U. C. 543, Jan. 7 B. C. 211.

[15] xxv. 29.

[16] Ibid.

Ἐπὶ ἱεραπόλου Ἀριστίωνος, τοῦ Ἱστιείου, κατενιαυσίου Σώσιος τοῦ Νυμφοδώρου. Βοῦλας ἁλίασμα τᾶ(ς) δευτέρας ἑξαμήνου, Καρνείου τριακάδι· προστάτας Ἱπποκλῆς Ἱπποκλέος· στεφάνου γυμνασιάρχῳ. Ἔδοξε τῇ ἁλίᾳ καθὰ καὶ τᾷ βουλᾷ· ἐπειδὴ ὁ αἱρημένος γυμνασίαρχος ἐς τὸν σᾶτες ἐνιαυτὸν Ἡρακλείδας Ζωπύρου ἐπιμέλειαν πεποίηται τῶν τε ἐφήβων καὶ νεωτέρων... Ὁ δᾶμος τῶν Γελῴων ἐπαινεῖ καὶ στεφαν(ο)ῖ τὸν γυμνασίαρχον Ἡρακλείδαν Ζωπύρου ἐλαίου στεφάνῳ, ἐπιμελείας ἕνεκεν καὶ φιλοπονίας τᾶς κατὰ τὸ γυμνάσιον.

It is sufficiently clear, from the general tenor of this monument, that it recorded a decree, passed in an assembly of the people of Gela, on the 30 Carneus, in the second *ἕκμηνον*, or half of their official year; which at this time must have been divided into two equal periods of six months each. It is evident from it too that Carneus was one of the months in this second half. It may be collected from it also, that it must have been passed at the end of the year; and consequently that Carneus, the month in which it was actually passed, must have been the last month of the year.

For, as the professed object of the decree was to reward a certain gymnasiarch for the discharge of the duties of his office *throughout* the year, it would most naturally be passed at the end of the year, just before he went out of office, and his successor came in. An Attic inscription is extant similar to this[l]; and that too records a decree, which *was* passed at the end of a gymnasiarch's year. The words of the preamble, *ὁ αἱρημένος γυμνασίαρχος ἐς τὸν σᾶτες ἐνιαυτὸν*, imply that his year was not yet over, was still the *present* or current year, even when the decree was passed; and as the names of the ephebi also, to whom crowns had been assigned in the course of the year, are recorded at the bottom of the marble, Corsini argues, and in our opinion justly, that this too is an evidence of the end of the year—that this list is the list of all who had thus been rewarded in the course of the year[m]. The truth indeed appears to have been this. Heraclides, in whose favour the decree was passed, having served the office of gymnasiarch for the whole of the year, and given entire satisfaction all that time, the people of Gela, either because

[l] Corp. Inscr. 108. i. 149, 150. cf. also N$^o$. 1053. i. 558. Megarica.

[m] F. A. ii. 422, 423.

such was the rule in those cases, or as a special mark of their approbation, were now decreeing him a crown of olive, on the very last day of his year, the 30th of Carneus.

This inscription at Gela may be illustrated by another, belonging to Agrigentum; from which also it may be inferred that Carneus was probably the last month in the Agrigentine calendar, as well as in that of Gela. First however it is to be observed, that the official year, among the Greeks, was sometimes divided into periods of two months, as well as of six months, and the magistrates changed accordingly six times in the year, as well as twice: Καὶ περὶ χρόνου, πόσος ἑκάστης ἀρχῆς· οἱ μὲν γὰρ ἑξαμήνους, οἱ δὲ δι' ἐλάττονος, οἱ δ' ἐνιαυσίας, οἱ δὲ πολυχρονιωτέρας ποιοῦσι τὰς ἀρχάς[n]; an example of which will probably come under our notice hereafter in the rule of Kyzicus.

This Agrigentine inscription is as follows[p]: Ἐπὶ Ἱεροθύτα Νυμφοδώρου τοῦ Φίλωνος, παραπροστα(τούσας) τὰς βουλᾶς, προεδρευούσας τᾶς φυλᾶς τῶν Ὑλλέων, προαγοροῦντος Διοκλέος τοῦ Διοκλέος, γραμματεύοντος Ἀδρανίωνος Ἀλεξάνδρου, ἁλίασμα ἕκτας διμήνου, Καρνείου ἐξήκο(ν)τος πάντᾳ, ὑπὲρ προξενίας Δημητρίῳ Διοδότου Συρακοσίῳ.

Ἔδοξε τᾷ ἁλίᾳ καθὰ καὶ τᾷ συνκλήτῳ· Ἐπείδη ἀνάγγελλον οἱ πρέσβεις οἱ ἐς Ῥώμαν πορευθέντες κ̀, τ. λ. Δημήτριον Διοδότου Συρακόσιον πολλὰς καὶ μεγάλας χρείας παρεισχῆσθαι τῷ ἁμῷ δάμῳ κ̀, τ. λ. τοῖς δὲ Ἀκραγαντίνοις πάτριόν ἐστι καὶ ἐκ προγόνων παραδεδομένον τιμεῖν τοὺς ἀγαθοὺς κ̀, τ. λ.

An inscription in honour of this same individual has been discovered also at Melita, or Malta[q]: Ὑπὲρ προξενίας καὶ εὐεργεσίας Δημητρίῳ Διοδότου Συρακοσίῳ καὶ τοῖς ἐγγόνοις αὐτοῦ.

Ἐπὶ Ἱεροθύτου Ἱκέτα Ἱκέτου, ἀρχόντων δὲ Ἡρέου καὶ Κότητος, ἔδοξε τῇ συγκλήτῳ καὶ τῷ δήμῳ τῶν Μελιταίων· Ἐπειδὴ Δημήτριος Διοδότου Συρακόσιος κ̀, τ. λ.

Both these inscriptions are later than the Roman æra in Sicily, and therefore than the one of Gela: but even the two latter, we may presume, and much more the former, must have been older than the adoption of the Julian, or any other form of the solar, calendar, instead of the lunar, any where in Sicily. And this being the case, since the Agrigentine inscription also is dated in the month Carneus, and on the last day of Carneus (*Καρνείου ἐξήκοντος*) in the last *δίμηνον* of the year, this too is a necessary argument that Carneus was either the eleventh or the twelfth month at this time at Agrigentum; and a very strong ground of presumption that it was actually the last month of the year there, as well as at Gela. And the same month, and in the same situation in the order of the year, being common to both calendars, if either of them began at the autumnal equinox, the other must have done so too.

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[n] Aristotle, Politica, iv. 15. ad principium.

[p] Corpus Inscript. 5491. iii. 595, 596. cf. Siciliæ Vett. Inscription. &c. Class. viii. No. i. Pag. 73. Gruter, cccci. Corsini, F. A. tom. ii. 418–427: Diss. xiv. 12.

[q] Corp. Ins. 5752. iii. 679. cf. Siciliæ Vett. &c. classis viii. No. 11. P. 76. Gruter, cccc. 8.

We shall therefore pass to the proof of this point, that the calendar of Gela in particular did begin at the autumnal equinox; assuming only that it was originally the same as the Syracusan, bearing date Jan. 7, B. C. 542, and that at the end of the first period of the old octaëteric cycle, when the epoch of the Syracusan calendar was transferred from Jan. 8 to July 4, B. C. 382, that of this of Gela was transferred to September 30, the epoch of the tenth month *.

### Section X.—*Confirmation of the Metonic Calendar of Gela by the date of the capture of Tyre, B. C. 332.*

The capture of Tyre, in the time of Alexander the Great, was distinguished by a certain coincidence, of which Diodorus Siculus has given a particular account. The occasion of his alluding to this subject was the capture of Gela by the Carthaginians, B. C. 405. Upon the approach of the invaders at that time, a brazen statue of Apollo, which stood in the suburbs of the city, was the first thing which fell into their power. This statue they sent to Tyre, as a present to their mother city: and its subsequent history there, according to Timæus, as reported by Diodorus, was as follows [r]—

*Ἐχόντων δὲ τῶν Γελώων ἐκτὸς τῆς πόλεως Ἀπόλλωνος ἀνδριάντα χαλκοῦν σφόδρα μέγαν, συλήσαντες αὐτὸν ἀπέστειλαν εἰς τὴν Τύρον. τοῦτον μὲν οἱ Γελῷοι κατὰ τὸν τοῦ θεοῦ χρησμὸν ἀνέθη-*

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* Cf. vol. iii. Appendix, Table iii. and Table xiv.

[r] xiii. 108. cf. xvii. 41–46. also Q. Curtius, iv. iii. 22.

*καν· οἱ δὲ Τύριοι, καθ' ὃν καιρὸν ὕστερον ὑπ' Ἀλεξάνδρου τοῦ Μακεδόνος ἐπολιορκοῦντο, καθύβριζον, ὡς συναγωνιζόμενον τοῖς πολεμίοις. Ἀλεξάνδρου δὲ ἑλόντος τὴν πόλιν, ὡς Τίμαιός φησι, κατὰ τὴν ὁμώνυμον ἡμέραν καὶ τὴν αὐτὴν ὥραν ἐν ᾗ Καρχηδόνιοι τὸν Ἀπόλλωνα περὶ Γέλαν ἐσύλησαν, συνέβη τιμηθῆναι θυσίαις καὶ προσόδοις ταῖς μεγίσταις ὑπὸ τῶν Ἑλλήνων, ὡς αἴτιον γεγενημένον τῆς ἁλώσεως. ταῦτα μὲν οὖν καίπερ ἐν ἄλλοις πραχθέντα χρόνοις οὐκ ἀνεπιτήδειον ἡγησάμεθα παράλληλα θεῖναι, διὰ τὸ παράδοξον..*

It may be observed on this account that, as Timæus (who was himself a contemporary of Alexander's) insisted on the minuteness of the coincidence between the circumstances of these two events, the capture and the recapture of this statue, down to the same time and season of the year, (if not to the same hour, and the same day of the month,) it may reasonably be presumed that he would not knowingly have omitted anything else of the same kind, which would have rendered the coincidence still more complete. If he insisted on the identity of the day of the month in each instance, would he have been silent about the identity of the month itself? had that too been one of the circumstances of each. If not, we may safely conclude that, though each of these events must have happened at the same season of the year, and on the same day of the month, they could not both have happened in the same month; and that would be explained by supposing that the calendar meanwhile had undergone a change, which, without disturbing the places of the months in the natural or the Julian year, had changed their numerical order, and their relation to one another. So that it might be perfectly true of the second of these events, that it happened at the same season, or *ὥρα*, of the year, and, according to the usual mode of distinguishing and denominating the days of the month, in every form of the lunar calendar alike, on the same day of the month, yet not in the same month, as the first.

With regard to this capture of Gela; the siege of Gela was the next operation undertaken by the Carthaginians, after the reduction of Agrigentum, as we have seen, not long before the winter solstice, B. C. 406[s]. With the spring of the ensuing year, *ἐπὶ τὴν ἐαρινὴν ὥραν*, the year of Alexias,

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[s] Diodorus, xiii. 80. 91. 104. 108–113.

B. C. 405, they were preparing to move on Gela[t]; but they did not actually come before it, and sit down to the siege of the city, until somewhat later, *ἀρχομένου τοῦ θέρους*[v]—Agrigentum having been previously laid waste. There can be no doubt then that the time, when the statue fell into their power, must have been the summer season in general, B. C. 405.

Now the date of the capture of Tyre, according to Arrian[x], was some time in the Attic month Hecatombæon, B. C. 332; i. e. in the Metonic calendar of the time being, Period ii. 25, Cycle vi. 6, some time between July 22 and August 20. According to Plutarch, the actual day was the *τριακὰς* or 30th of the current month in the Macedonian calendar[y]; which, as we hope to shew on a future opportunity, is to be understood of the 30th of Löus, the seventh month in the old Macedonian calendar. And that is so far confirmed by the fact, that the *τριακὰς* of this month, Cycle xvii. 8, and the 3d of the Attic Hecatombæon, both fell on July 24, B. C. 332. But the important question for our consideration at present is, On what day in the calendar of Gela did July 24 this year fall?

Assuming therefore that the proper date of the Metonic calendar at Gela was September 30, B. C. 382; then, Period i. 50, Cycle iii. 12, of that calendar, the head of the calendar would fall on September 28, B. C. 333, and the scheme of the calendar, for that year, would stand as follows.

*Calendar of Gela, B. C. 333–332, Period i. 50, Cycle iii. 12.*

Epoch, September 28, B. C. 333.

| Month. | | B. C. | Month. | | B. C. |
|---|---|---|---|---|---|
| i. Sept. 28 | Ex. 15 | 333 | vii. March 24 | Ex. 24 | 332 |
| ii. Oct. 27 | | | viii. April 22 | | |
| iii. Nov. 26 | — 18 | | ix. May 22 | — 27 | |
| iv. Dec. 25 | | | x. June 20 | | |
| v. Jan. 24 | — 21 | 332 | xi. July 20 | — 30 | |
| vi. Feb. 22 | | | xii. Aug. 18 | | |

Consequently July 24, B. C. 332, was the fifth of the eleventh month: i. e. the *πέμπτη ἱσταμένου* of that month. The tenth month however in the old calendar having been constituted the first of the new, B. C. 382; the eighth of the old must have become the eleventh of the new. On this principle the *πέμπτη ἱσταμένου* of the xith month, B.C. 332, and the *πέμπτη ἱσταμένου* of the viiith, B. C. 405, should have coincided and been the same: and it is easy to see from the scheme of the Octaëteric Cycle proposed supra[z], that B. C. 405, Cycle xviii. 2, of the old calendar, the first of the eighth month falling on July 20, the fifth would fall on July 24; and it is easy to see from this scheme that, in the 50th year of the first Callippic Period of the new calendar, the first of the eleventh month falling on July 20, the fifth must have fallen on July 24—and both on the day of the capture of Tyre, the 30th of Löus in the Macedonian calendar of the time being, the third of Hecatombæon in the Athenian.

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[t] xiii. 96. 104. [v] Ibid. 108. [x] Lib. ii. 24. [y] Alexander, xxv.

The proof of the coincidence therefore, between the dates of these two events, the capture of the statue of Apollo by the Carthaginians, B. C. 405, and its recovery by the capture of Tyre, B. C. 332, insisted on by Timæus, and in the sense and to the extent in which and to which he insisted upon it, is now complete. The date of each was truly an *ὁμώνυμος ἡμέρα*—the *πέμπτη ἱσταμένου* of the month—and a day of that name and style in each instance which truly fell out at midsummer. But it was not the fifth of the same month in each instance; being the fifth of the eighth month in the one, and the fifth of the eleventh in the other. But neither was it asserted by Timæus to have been. If however this eighth month in the old calendar and this eleventh in the new had both been called Carneus, we can scarcely doubt he would have insisted on that coincidence as much as any thing; because, as originally the same, and as both called Carneus alike, each of these months would have been sacred to Apollo, and nothing could have been so likely to heighten the extraordinariness of the coincidence in his opinion, as *this* fact; that one and the same statue of Apollo had been made captive in the first instance, and recovered in the second, in Apollo's own month. We may take it for granted then that this eighth month in the old calendar, and the eleventh in the new, could not have had the name of Carneus, whatsoever else it might have been called; and we have already discovered that in each of these calendars, both that of Syracuse, and that of Gela, and that of Agrigentum, the month called Carneus must have been originally the ninth: and afterwards the third in the Syracusan, the twelfth in the other two.

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[z] Page 390. cf. vol. iii. Appendix, Table iii.

The reader cannot fail to observe that in these several coincidences, which we have thus been enucleating from this tradition, reported by Timæus, *four* of our calendars are authenticated and confirmed at once; the old Octaëteric calendar of Gela, the new or Metonic calendar of Gela, the old Macedonian calendar, and the Metonic calendar of the Athenians. Double dates of this kind are very rare in their occurrence; and triple or quadruple, such as we have in this instance, are still more so: and therefore, when they do occur, they are the more striking, and ought to be considered the more critical and convincing.

# APPENDIX.

## CHAPTER I.

*On the Calendar of Tauromenium or the ancient Naxus in Sicily.*

### SECTION I.—*On the Inscriptions discovered at Tauromenium; and the names of the months upon them.*

The calendars, which we have just been considering, are those if not of the three oldest, yet of the three most illustrious, of the settlements of the Greeks in Sicily, Syracuse, Gela, and Agrigentum; and yet the account which we have been able to give of them, as the reader cannot fail to have observed, contains little or no information on a very important part of the history of any of the calendars of antiquity; that of the names and order of the months. The truth is, nothing is extant at present which throws any light on this branch of the subject, except in the case of the month Carneus; which has been found entering each of these calendars under the same name, and in the same place in the order of the year. It is therefore a curious and singular instance of exception to the fate which thus appears to have befallen the calendars of the rest of the Siciliot Greeks, even the oldest, the most powerful, and the most illustrious among them, that the calendar of a city of secondary note, in comparison of these three, Syracuse, Gela, or Agrigentum, the Naxus or Tauromenium of classical antiquity, has been accidentally brought to light in our own time, almost in its integrity, by the discovery in 1833, on the site of that city, of four Marbles which are now preserved in the public museum of Messana in Sicily.

For a more particular account of this discovery, and of the inscriptions contained on these Tables, we refer to the Corpus Inscriptionum Græcarum[a]. It is sufficient for our purpose in referring to them at present to observe, i. That each of these four Tables has two or more columns of characters, the first of them, three, each of the other three, two; and that the subject matter of these inscriptions on each is the same in general, an account of the *accepta* and *expensa* of various public officers, of the time being, under their proper styles and titles, the Ἱερομνάμονες, the ταμίαι, the σιτοφύλακοι or ἀγερταὶ (these last frequently with the addition of κυάμων, the σιτοφύλακοι or ἀγερταὶ κυάμων), the σιτῶναι, and the like: and that, in their original and perfect state, these accounts must have gone through the whole of a given year, taking each of the months in its turn, from the first to the last; to which peculiarity in fact it is due that, even from what remains of these inscriptions at present, we are able to recover the names and order of the months of the calendar. ii. That it is easily discoverable on examination that in these four Tables *two* years' accounts at least must have been originally recorded; and in such an order and manner, that Tables i. and ii. must have belonged to one of these years, and Tables iii. and iv. to the other: and in fact that the only means of reconciling the indications of the first two, to those of the last two, on this one point of the names and order of the months in the calendar for the time being, is this very hypothesis, that the first two belong to one year, and the last two to another, and not all four to one and the same; of which no proof whatsoever is discoverable in the Tables themselves. It is observable also that the second of these years (the accounts of which are recorded in the third and fourth Tables) in the order of the cycle of the calendar for the time being must have been intercalary; for the name of the intercalary month occurs in them, as that of one of those of which the accounts are recorded *.

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[a] No. 5640. Tom. iii. 629 sqq.

The next remark which may be made on these inscriptions is, That these accounts of the people of Tauromenium appear to have been kept in a very uniform manner; that the rule seems to have been to have a distinct entry for every month, beginning with the first in the order of the year—and to mark and distinguish this as the head of the series, or beginning of the list, by prefixing to it not only the name of the πρύτανις for the month, but also that of the ἄρχων ἐπώνυμος; and to discriminate the rest from this by prefixing to each of them the name of the πρύτανις for the month, but not that of the ἄρχων ἐπώνυμος also †. It follows from this rule, that even where the name of the month has perished from off these monuments, if the word πρύτανις, or any part of that word, is still found in the same place upon them, it is an indication of the beginning of a fresh month. The same conclusion follows from the order and the method of the entry of the accounts for each month: the first of which appear to have been those of the Hieromnemons, ushered in by a stated form of words, Ἱερομναμόνοις ἔσοδος; then those of the other officers, preceded by a similar form, ταμίαις ἔσοδος, σιτοφυλάκοις ἔσοδος, and the like: so that, even where the context in other respects is imperfect in its present state, the occurrence of this word *ἔσοδος*, after a name of office, in those cases also is an intimation of a fresh month.

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* It deserves to be mentioned also that, besides the light which these inscriptions throw on the calendar of Tauromenium for the time being, they are valuable and interesting for the frequent mention which occurs in them of the measures of value, peculiar to the Siciliot Greeks, the λίτρα and τάλαντον, and the measures of content, the μέδιμνος, the ἡμιμέδιμνος, and the ἡμίεκτος—the former in particular something very different from what would be supposed *a priori* to have been denoted by the terms. For these explanations however we cannot do better than refer our readers to the commentary of the learned editor Franzius.

† It appears also, from the four Tables taken together, the two last of which, as we have observed, relate to an intercalary year, that in the common years of the cycle there was a distinct Prytanis for every month; in the intercalary years there was a distinct Prytanis for each of the first twelve months, but for the extra or thirteenth month all the Prytaneis of the year served in common.

These observations having been premised, we may proceed to consider what months, and in what order, are discoverable on these four Tables; extracting for that purpose so much of the inscriptions themselves in each instance as may suffice to shew the distinctness of one of these notices from another.

### *Corpus Inscriptionum Græcarum*, iii. 629–639.
### No. 5640.

### Tauromenium.

Tab. i. i. *᾿Αρτεμίσιος.*
Col. i. l. 1. *᾿Επὶ ᾿Απολλοδώρου τοῦ ᾿Απολλοδώρου ᾿Αρτε[μισίου. πρ. Λυκίσκος . . . ᾿Ασιν. ῾Ιερομναμόνοις [ἔσοδος κ̀, τ. λ.*
Cf. l. 7. *Καὶ παρὰ ῾Ιερομναμόνοις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*
— 18. *Καὶ παρὰ ταμίαις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*
— 28. *Π[αρὰ] σιτοφυλάκοις τοῖς πρότερον κ̀, τ. λ.*
— 35. *Παρὰ δὲ ἀγέρταις τοῖς πρότερον κ̀, τ. λ.*

Tab. i. ii. *Διονύσιος.*
Col. ii. l. 1. *Διονυσίου. Πρ. κ̀, τ. λ. ῾Ι]ερομναμόνοις ἔσοδος κ̀, τ. λ.*
Cf. l. 11. *Καὶ παρὰ ἱερομναμόνοις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*
— 15. *Καὶ παρὰ ταμίαις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*
— 26. *Καὶ πα[ρὰ] σιτοφυλάκοις τοῖς πρότερον κ̀, τ. λ.*
— 31. *[Παρ]ὰ μὲν σιτοφυλάκοις τοῖς πρότερον κ̀, τ. λ.*
— 34. *Παρὰ δὲ ἀγέρταις τοῖς πρότερον κ̀, τ. λ.*

Tab. i. iii. A.
Col. iii. 4. . . . . *Πρ. . . ῾Ιερομναμόνο[ις ἔσοδος κ̀, τ. λ.*
Cf. l. 12. *Καὶ παρὰ ἱερομναμόνοις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*
— 14. *Κοὶ παρὰ ταμίαις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*
— 23. *Καὶ παρὰ σιτοφυλάκοις τοῖς πρότερον κ̀, τ. λ.*
— 29. *Παρὰ δὲ ἀγέρταις τοῖς πρότερον κ̀, τ, λ.*
— 32. *Παρὰ σιτώναις τοῖς ἐπὶ Θεοδώρου.*

Tab. ii. iv. B.
Col. i. l. 1. * * * *
— 5. . . . . *Σιτοφυλάκοις χαλκοῦ ἔσοδος].*
Cf. l. 14. *[Παρὰ] σιτοφυλάκοις [τοῖς πρότερον.*

Tab. ii. v. Γ.
Col. i. l. 20. . . . *ιου [πρ. . . . . ῾Ιερομναμόνοις [ἔσοδος.*
Cf. l. 25. *Καὶ παρὰ ἱερ[ομναμόνοις τοῖς ἐπὶ ᾿Αρίστωνος κ̀, τ. λ.*

Tab. ii. vi. Δ.
Col. ii. l. 1. * * * *
Cf. l. 5. *Σιτοφυλάκοις χαλκοῦ ἔσοδος*
— 13. *σιτο]φυλάκοις τοῖς ἐπὶ κ̀, τ. λ.*

In these two Tables then there is evidence of six months, for any thing which appears to the contrary, consecutive; and consequently as the first of them has the name of the archon or principal magistrate prefixed to it*, the first six of the year: ’Αρτεμίσιος, Διονύσιος, Α, Β, Γ, Δ. Let us now proceed to consider what notices of the same kind, and in what order, occur in the third and fourth Tables.

*Corpus Inscriptionum Græcarum.*

No. 5640.

Tab. iii. i. ’Απελλαῖος α΄.
Col. i. l. 1. ’Απελλαίου προτέρου. Πρ. ’Α]μμώνιος Σα[ραπ]ίωνος . .
῾Ιερομνα[μόνοις ἔσοδος κ̀, τ. λ.

ii. ’Απελλαῖος β.
Col. i. l. 9. ’Απελλαίου δευτέρου. Πρ. πάντες.
῾Ιερομναμόνοις ἔσοδος κ̀, τ. λ.

iii. ’Ασύλιος.
Col. i. l. 17. ˥ ʿ$^{V}$ΛΙΟΥ. Πρ. κ̀, τ. λ. ῾Ιερομναμόνοις ἔσοδος κ̀, τ. λ.

iv. Καρνεῖος.
Col. i. l. 26. Καρνείου. Πρ. κ̀, τ, λ. ῾Ιερομναμόνοις ἔσοδος κ̀, τ. λ.

v. Ε.
Col. ii. l. 1. A month lost here—all but the last two lines, ending with the usual form of words before the entry of the last item in every month: Σιτωνίῳ Φρύνιος κ̀, τ. λ.

vi. Δάλιος.
Col. ii. l. 3. Δ]αλίου. Πρ. . . . ῾Ιερομναμόνοις ἔσοδος κ̀, τ. λ.

vii. ’Απολλώνιος.
Col. ii. l. 13. ’Απολλωνίου. Πρ. κ̀, τ. λ. ῾Ιερομναμόνοις ἔσοδος κ̀, τ. λ.

Tab. iv. viii. Ζ.
Col. i. l. 3. Πρ. . . . ῾Ιερομναμόνοις ἔσ[οδος κ̀, τ. λ.

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* That ’Επὶ ’Απολλοδώρου premised to the entry in this month, Artemisius, and to that of none of the rest which come after it, was intended for a general reference to the accounts of the year as such, may be inferred from the similar allusion which occurs both under this month, and under the next, and under the third, which we have marked Α, and under the fifth marked Γ, to the accounts ἐπὶ ’Αρίστωνος, as under the month Α also to those ἐπὶ Θεοδώρου—both of which must have been intended in like manner of references to the year of Aristo, and to the year of Theodorus, like this to that of Apollodorus, in general: and very possibly, as those of the year of Aristo in particular, to those of the year before this of Apollodorus, so those of the year of Theodorus, to those of the year but one before it.

ix. H.

Col. ii. l. 1. . . . . . Πρ. . . Ἱερομναμόνοις ἔσοδος κ̀, τ. λ.

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x. Εὐκλεῖος.

Col. ii. l. 9. Εὐκλείου. Πρ. Ἀμμώνιος Σαραπίωνος κ̀, τ. λ.
Ἱερομναμόνοις ἔσοδος κ̀, τ. λ.

## Section II.—*Comparison of these two lists, and inferences deducible from it.*

It thus appears that, in the two last of these Tables, ten months are discoverable, and in the following order:

i. Ἀπελλαῖος α.
ii. Ἀπελλαῖος β.
iii. Ἀσύλιος.
iv. Καρνεῖος.
v. E.
vi. Δάλιος.
vii. Ἀπολλώνιος.
viii. Z.
ix. H.
x. Εὐκλεῖος.

In the first two, in like manner, six were discovered, and in the following order:

i. Ἀρτεμίσιος.
ii. Διονύσιος.
iii. A.
iv. B.
v. Γ.
vi. Δ.

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The first inference, deducible from the comparison of these lists, is this, That, as there are six months in the one, and ten in the other, and both in their respective lists are to be considered consecutive alike, we cannot in these four Tables have the accounts of one and the same year; otherwise that year must have contained sixteen months.

The next is That, if these accounts belong to distinct years, Tables i and ii must belong to one of these years, and Tables iii and iv to the other; and whether the years themselves were consecutive, or separated by any distance of time asunder, makes no difference to the argument, so far as the arrangements and details of the calendar, in either of those years, are concerned.

Thirdly, forasmuch as the entries and accounts in each of these Tables (Tables i and ii of the one list, and Tables iii and iv of the other), as far as they go, proceed regularly from month to month, without any interruption in their continuity, which can be discovered; it is reasonable to conclude that, in the first of these lists, we have the names and order of the six months of the calendar of the time being from Ἀρτεμίσιος to Δ, and in the second, the names and order of the ten from Ἀπελλαῖος to Εὐκλεῖος.

Fourthly, it is evident also that these ten months of the second list are virtually reducible to nine; because the second is merely the first repeated. It is manifest that this second list exhibits the months, from Ἀπελλαῖος to Εὐκλεῖος, in an intercalary year of the cycle; the second in the list being a second Ἀπελλαῖος itself. In an intercalary year consequently there would be ten months from Ἀπελλαῖος to Εὐκλεῖος—in an ordinary or common one, there would be nine.

Fifthly, the name of the eponym or principal magistrate of Tauromenium, whatsoever was his proper style or title, whether ἄρχων or στρατηγὸς, or any similar term, being premised to the first month, in the first of these lists, but to none other; it is a natural inference from that distinction, that this first month in that list was the first in the year for the time being: consequently that the year according to that list must have been beginning in the month Artemisius. In like manner, as the series of entries (*accepta* and *expensa*) in the second list begins with the first Apellæus, and goes on without interruption to Εὐκλεῖος—and no traces are discoverable of any entries after that month, though there was room enough left on the marble to have continued the account, if there had been any occasion to do so; from this fact also it seems only reasonable to infer that the year's accounts were completed with those of this month Εὐκλεῖος: and consequently that Εὐκλεῖος at this time was the last month in the calendar. And this conclusion being taken along with the preceding, it will follow from both together, i. That Ἀρτεμίσιος must have been the first month at this time, and Εὐκλεῖος the last; and every other month, which actually made part of the calendar at the same time, must have come between the two. ii. That as we have the names and order of six months, from Artemisius to Δ in the one, and those of nine months, from Ἀπελλαῖος to Εὐκλεῖος in the other, the three last of the former list must have been the same with the three first of the latter; otherwise the calendar itself must have contained fifteen months.

It is evident therefore that, in order to the recovery of the calendar of Tauromenium (as it was standing at this time) from the joint testimony of both these lists, nothing is necessary, except to graft the second list upon the first, so that the first name in this second list shall take up the third in the first. And this being done accordingly, we may observe the following coincidence; viz. that though the fourth and the sixth of the names on this first list have been totally lost from the table, the fifth is so far entire as to shew that it must have been some one which ended in ΙΟΣ: and as soon as we come to apply the first three names of the second list to these three last of the former—the name which falls in with the second of these three in the former list is that of ΑCΥΛΙΟΣ, i. e. one which ends in ΙΟΣ *.

We may now therefore venture to blend these two lists together, and to form a fresh one out of both; which, under the circumstances of the case, will exhibit the order of the months in the calendar of Tauromenium at the date of these inscriptions, throughout the year, and, in eight instances out of twelve, the names also.

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* That the characters which still express so much of the name of this month as is legible, Tab. ii. Col. i. 20, are the same with those of the month, Tab. iii. Col. i. 17, which we have called Ἀσύλιος—see the observations of the editor, iii. 640, l. 29 a.

*Calendar of Tauromenium, at the date of No. 5640 of the Corpus Inscriptionum.*

i. Ἀρτεμίσιος
ii. Διονύσιος
iii. A.
iv. Ἀπελλαῖος = B of the first list.
v. Ἀσύλιος = Γ —
vi. Καρνεῖος = Δ —
vii. E.
viii. Δάλιος
ix. Ἀπολλώνιος
x. Z.
xi. H.
xii. Εὐκλεῖος

### SECTION III.—*On the beginning of the year at Tauromenium; or the site of its first month in the natural or Julian year.*

The first observation which may be made with respect to this question is, that, to judge from the scheme which has just been obtained from these two lists, the resulting state and form of the calendar, even though *de facto* those of the date of these inscriptions, could not have been its original ones; for it appears from this scheme that the intercalary month at this time was the fourth, under the name of Ἀπελλαῖος δεύτερος: and that, in our opinion, both from the reason of things and from the analogy of the lunar calendars of the Greeks in general, is decisive that this month Ἀπελλαῖος must have been originally the last in the calendar. Consequently, if this month, the ivth on the above list, was originally the xiith, Ἀσύλιος, the vth on the list, must have been originally the first; and Ἀρτεμίσιος, which stands first on this list, must have been originally the ninth. So that the first and proper Type of the calendar, from which that of these inscriptions must have been ultimately derived, some time or other, stood as follows.

*First and original Type of the Calendar of Tauromenium.*

| Month. | Month. | Month. |
|---|---|---|
| i. Ἀσύλιος | v. Ἀπολλώνιος | ix. Ἀρτεμίσιος |
| ii. Καρνεῖος | vi. Z. | x. Διονύσιος |
| iii. E. | vii. H. | xi. A. |
| iv. Δάλιος | viii. Εὐκλεῖος | xii. Ἀπελλαῖος |

And from this state of the case at first, it is an obvious inference that the beginning of the year must some time or other have been transferred from Ἀσύλιος to Ἀρτεμίσιος, yet without any change in the seat of the intercalary month; which must have continued to be the second Ἀπελλαῖος, after this change, as much as before.

It will follow too that if Ἀπελλαῖος was originally the last month in this calendar, and always the intercalary month, it must have corresponded both at first and ever after (*mutatis mutandis* merely) to the Attic Ποσειδεών, and therefore to the Julian December. And that being the proper correspondence of these two months, one in this calendar, the other in the Attic, both at first and ever after, the rest of the months in the one, and the rest in the other, must have stood relatively to each other as follows.

*Comparison of the original Type of the Tauromenite calendar with the Attic and the Julian.*

| Tauromenite. | Attic. | Julian. |
|---|---|---|
| i. Ἀσύλιος | i. Γαμηλιών | January |
| ii. Καρνεῖος | ii. Ἀνθεστηριών | February |
| iii. E. | iii. Ἐλαφηβολιών | March |
| iv. Δάλιος | iv. Μουνυχιών | April |
| v. Ἀπολλώνιος | v. Θαργηλιών | May |
| vi. Z. | vi. Σκιρροφοριών | June |
| vii. H. | vii. Ἑκατομβαιών | July |
| viii. Εὐκλεῖος | viii. Μεταγειτνιών | August |
| ix. Ἀρτεμίσιος | ix. Βοηδρομιών | September |
| x. Διονύσιος | x. Πυανεψιών | October |
| xi. A. | xi. Μαιμακτηριών | November |
| xii. Ἀπελλαῖος | xii. Ποσειδεών | December |

Consequently, if the head of this calendar was some time or other transferred from Ἀσύλιος to Ἀρτεμίσιος, it must have been transferred from January to September; and this Tauromenite calendar so far must have run through a course exactly the same as that of the calendar of Gela and the calendar of Agrigentum, and even that of Syracuse: all of which, as we have seen, originally bore date in the Julian month of January, and ultimately came to bear date in the Julian month of September.

### SECTION IV.—*On the history of Tauromenium.*

The Tauromenium of later Sicilian history was the representative of the more ancient Naxus. The name is written both Ταυρομένιον and Ταυρομένειον; being so called, according to Diodorus, from Ταῦρος and μένειν[a]—Ταῦρος being the name of a rocky eminence, naturally very high and very strong, not more than three miles from Naxus, on which this city was founded after the destruction of Naxus. The nomen gentile or ἐθνικὸν was Ταυρομενίτης or Ταυρομένιος[b]. It still exists on or near to its ancient site, under the name of Taormina, about 20 miles from Messana.

With respect to the older city of Naxus, if we except Minoa (if such a city was really founded in Sicily by the followers of Minos, after his death), it was the first colony of the Greeks in Sicily, and one year older than Syracuse itself. Ἑλλήνων δὲ πρῶτοι Χαλκιδῆς, says Thucydides[c], ἐξ Εὐβοίας πλεύσαντες μετὰ Θουκλέους οἰκιστοῦ Νάξον ᾤκισαν, καὶ Ἀπόλλωνος

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[a] xiv. 59: xvi. 7.

[b] Stephanus Byz. in nomine.

[c] Thucyd. vi. 3.

*ἀρχηγέτου βωμὸν, ὅστις νῦν ἔξω τῆς πόλεώς ἐστιν, ἱδρύσαντο, ἐφ᾽ ᾧ, ὅταν ἐκ Σικελίας θεωροὶ πλέωσι, πρῶτον θύουσι . . . Θουκλῆς δὲ καὶ οἱ Χαλκιδῆς*, he continues, *ἐκ Νάξου ὁρμηθέντες, ἔτει πέμπτῳ μετὰ Συρακούσας οἰκισθείσας, Λεοντίνους τε, πολέμῳ τοὺς Σικελοὺς ἐξελάσαντες, οἰκίζουσι, καὶ μετ᾽ αὐτοὺς Κατάνην· οἰκιστὴν δὲ αὐτοὶ Καταναῖοι ἐποιήσαντο Εὔαρχον.* Mr. Clinton[d] dates the foundation of Naxus B. C. 735, and that of Syracuse B. C. 734.

The circumstances of the foundation of Naxus are somewhat more particularly related by Strabo, after Ephorus; speaking of Naxus and Megara in Sicily[e]: *Φησὶ δὲ ταύτας Ἔφορος πρώτας κτισθῆναι πόλεις Ἑλληνίδας ἐν Σικελίᾳ, πεντεκαιδεκάτῃ γενεᾷ μετὰ τὰ Τρωϊκά . . . Θεοκλέα δ᾽ Ἀθηναῖον παρενεχθέντα ἀνέμοις εἰς τὴν Σικελίαν κατανοῆσαι τήν τε οὐδένειαν τῶν ἀνθρώπων καὶ τὴν ἀρετὴν τῆς γῆς. ἐπανελθόντα δὲ Ἀθηναίους μὲν μὴ πεῖσαι, Χαλκιδέας δὲ τοὺς ἐν Εὐβοίᾳ συχνοὺς παραλαβόντα καὶ τῶν Ἰώνων τινὰς, ἔτι δὲ Δωριέων οἳ πλείους ἦσαν Μεγαρεῖς, πλεῦσαι. τοὺς μὲν οὖν Χαλκιδέας κτίσαι Νάξον, τοὺς δὲ Δωριέας Μέγαρα, τὴν Ὕβλαν πρότερον καλουμένην. αἱ μὲν οὖν πόλεις οὐκέτ᾽ εἰσί κ᾽, τ. λ.*

Naxus it appears from Thucydides was a flourishing city all through the Peloponnesian war; but we learn from Diodorus Siculus[f] that about B. C. 401, four or five years after Dionysius the Elder got possession of the Tyranny at Syracuse, (B. C. 405 *ineunte*,) it was betrayed to him by Procles, its ruler at the time; and having fallen into his power, was razed by him to the ground, and its inhabitants made slaves, and their territory given to the neighbouring Siculi. And from this time forward Naxus ceases to be heard of in history.

Tauromenium is first mentioned by him, Olymp. xcvi. 1. Phormio, B.C. 396[g]; and at that time it was in the occupation of the Siculi, who after the destruction of Naxus, and the dispersion of its inhabitants, took possession of the eminence called *Ταῦρος*, and founded a settlement there. And as they were encouraged to do this by Imilco, the commander of the Carthaginians, at that time engaged in the conquest of Sicily, to judge from the context of Diodorus, this foundation must have been between B. C. 396 Phormio, and B. C. 397 Lysiades[gg] or Suniades, the year before. Diodorus proceeds to relate how siege was soon after laid to this settlement by Dionysius himself[h]; which the circumstances of the account, as we had occasion to shew in the Introduction to the Tables of our Fasti Catholici[i], imply to have been going on critically at the winter solstice, B. C. 393. And though he failed to reduce the place at this time, yet, it appears[k], that on the conclusion of peace with the Carthaginians, B. C. 392, Tauromenium must have become subject to his jurisdiction.

It is clear however that though Diodorus thus attests the existence of a settlement of some kind, in the vicinity of the ancient Naxus, and on this hill or *λόφος* of *Ταῦρος*, B. C. 396 and B. C. 392; he did not consider the city of *Ταυρομένιον* properly so called to have come into being, before the time of Andromachus, the father of Timæus the historian, to whom he distinctly attributes its foundation, and in the year of Cephisidotus, Ol. cv. 3, B. C. 358[l]: *Ἅμα δὲ τούτοις πραττομένοις Ἀνδρόμαχος ὁ Ταυρομενίτης, Τιμαίου μὲν τοῦ τὰς ἱστορίας συγγράψαντος πατὴρ ὢν, πλούτῳ δὲ καὶ ψυχῆς λαμπρότητι διαφέρων, ἤθροισε τοὺς ἐκ τῆς Νάξου τῆς κατασκαφείσης ὑπὸ Διονυσίου περιλειφθέντας· οἰκίσας δὲ τὸν ὑπὲρ τῆς Νάξου λόφον, τὸν ὀνομαζόμενον Ταῦρον, καὶ μείνας κατ' αὐτὸν πλείω χρόνον, ἀπὸ τῆς ἐπὶ τοῦ Ταύρου μονῆς*[m] *ὠνόμασε Ταυρομένειον. ταχὺ δὲ τῆς πόλεως ἐπίδοσιν λαμβανούσης, οἱ μὲν οἰκήτορες μεγάλους περιεποιήσαντο πλούτους, ἡ δὲ πόλις ἀξιόλογον ἀξίωμα περιποιησαμένη, τὸ τελευταῖον ἐν τῷ καθ' ἡμᾶς βίῳ, Καίσαρος ἀναστατήσαντος τοὺς Ταυρομενίτας ἐκ τῆς πατρίδος, Ῥωμαίων ἀποικίαν ἐδέξατο* *.

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[d] F. H. in annis.

[e] vi. 2. p. 26 a.

[f] xiv. 14, 15. 68. cf. 87. Olymp. xciv. 2. Euclides, B. C. 403. cf. 12. 3.

[g] xiv. 59. cf. 54.

[gg] xiv. 47.

[h] xiv. 87, 88. Eubulides, cf. 85.

[i] Page 115.

[k] xiv. 96. cf. 94 Philocles and 97 Nicoteles.

From this general survey of the history first of Naxus and afterwards of Tauromenium, it may very probably be inferred that all these cities, both Naxus, Leontium, Catana, and Megara in Sicily, and Chalkis in Eubœa, having been so closely connected in their origin, had a common lunar calendar, similarly, and at the same time, derived from the Primitive Solar calendar; and that this was the third Type of the Hellenic Octaëteris in general. On that supposition, the first Period of this calendar would come to an end, and the second begin, just in the midst of the interval, from B. C. 401 to B. C. 358—when Naxus had ceased to exist, and Tauromenium was not yet in being. Under these circumstances, though the calendar of Naxus might have survived the destruction of its own city, it cannot be supposed that any thing would be, or could have been, done, for correcting its epoch, or substituting the Metonic in its stead, B. C. 382: and if it was allowed to enter upon another Period, without change or correction, it would probably be suffered to go on to the end of that Period too, B. C. 222; at which time the city and people of Tauromenium having long been in a state of uninterrupted prosperity, there is no reason why they might not deliberately correct their calendar; by substituting the Metonic for the old Octaëteric Cycle, and transferring the head of the calendar from the first month to the ninth, and from Jan. 9—the epoch of the first month, B. C. 222—to Sept. 2, that of the ninth the same year.

These however are only conjectures of our own; to which the reader will attach just as much weight as he thinks proper. With respect to the actual date of these Tauromenitan Inscriptions; nothing is discoverable upon them, which might serve as an indication of their age, except the name of the *πρύτανις* who appears to have been filling that office in the month Εὐκλεῖος—the last of those mentioned in Table iv—and if we are right in our scheme proposed supra, the last in the year. This prytanis is there designated 'Αμμώνιος Σαραπίωνος[m]; and this latter name Σαραπίων being derived from Σάραπις, it is manifest no such name could have had an existence among the Greeks before the introduction of the worship of Σάραπις among the Egyptians; which as we have shewn, in the first part of these Origines[n], was critically B. C. 281–280. The introduction of the worship of Sarapis after this, among the Greeks of the mother country, is attributable to the influence of Ptolemy Philadelphus himself[o]; and if he must first have become known to them, and first have been recognised by them as divine, before they could have begun to call themselves by his name, this name of Sarapion could hardly have been adopted and naturalized among them much before B. C. 222. Franzius, the editor of these Inscriptions, observes that there is nothing about them characteristic of the Roman Æra: and as even that cannot be dated in Sicily from an earlier time than B. C. 211, when Sicily was first reduced to a Roman province, there is nothing in that fact inconsistent with our hypothesis, that the calendar, recognised in these inscriptions, was not older than B. C. 222.

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* This was probably B. C. 36 or 35. cf. Dio. xlix. 5, Strabo, vi. 2. 27, and though Diodorus thus speaks of the city as still a flourishing one in his time, it may be inferred from Strabo, vi. 2. 27, that it must have fallen comparatively into decay. For the history however of this city from first to last, we refer the reader to the excellent article in Dr. Smith's Geography, in nomine.

[l] xvi. 7. cf. 6. 2–4.

[m] Cf. xiv. 59.

We shall therefore conclude these observations upon it, by briefly considering the names and order of its months, as they have been recovered from these inscriptions; and whether any thing is discoverable either in the meaning of these names, or in the order and place assigned them on our list, calculated to confirm our arrangements.

## SECTION V.—*On the names and order of the months in the Calendar of Tauromenium.*

i. *'Αρτεμίσιος.* The name of this month must have been derived from that of *Ἄρτεμις.* It follows that the month so called was probably sacred to the Hellenic Diana. No name is of more frequent occurrence in the Greek lunar calendars of antiquity; with this difference only, that in other instances it was generally the name of a month which corresponded to the Attic Elaphebolion, or Munychion, or Thargelion, and to the Julian March, April, or May; but in this instance it must have corresponded to the Attic Boëdromion, and to the Julian September. But there is no better reason discoverable why this name should have been given to the month which corresponded to the Attic Elaphebolion, or Munychion, or Thargelion, than the popular belief of later times that both Apollo and Artemis were born at that season of the year; and we hope to shew hereafter that the more ancient belief, as consigned to the Pythian Fable, and attested by it, was different from the popular one of later times, and would have designated the Boëdromion of the Attic calendar, and the September of the Julian, as the Artemisian month. The reasons however which determined the nomenclature of the lunar calendars of the Greeks were likely *a priori* to be so various, and we may add, so capricious, that it ought to excite no surprise to find the same name in different calendars *de facto* at different seasons of the year. The Spartan calendar had its Artemisian month, which corresponded to Elaphebolion[p]. The Syracusans had their Artemisia, and therefore in all probability their Artemisian month; in which case, to judge from the context of Livy[q], that too probably corresponded to Elaphebolion: and if the third month of the Syracusan calendar, B. C. 542, had received this name, that fact alone might have been sufficient with the people of Naxus for giving the name of Artemisius to the ninth of theirs.

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[m] Tab. iv. col. ii. l. 9. See p. 437 supra, and 435, the first name in Table iii.

[n] Fasti Catholici, iv. 404–438.

[o] Ibid. iv. 413.

ii. *Διονύσιος.* A month of this name too occurs in many others of the calendars of Hellenic antiquity: but commonly in the winter quarter of the year, and at or about the stated season of the Dramatic representations of antiquity, called *Διονύσια* also. In these cases the etymon of the name would appear to have been *Διονύσια* rather than *Διόνυσος*. But the etymon of *Διονύσια* itself is ultimately *Διόνυσος*; and the *Διονύσια* properly so called were the rites or ceremonies of *Διόνυσος*. And as nothing could be more properly the *Διονύσια* in this sense than the *Ληναῖα*, or those festivities which coincided with the vintage, and even the *Διονύσια*, in the sense of the dramatic representations of antiquity, are often styled *Λήναια*; no such name could have been given with more propriety to any month than the *vintage* month, the month of the *Διόνυσος* of the Greeks, the Liber Pater of the Romans. In this case the month so called in any other of the lunar calendars of the Greeks must have corresponded to Pyanepsion in the Attic, and October in the Julian calendar; as this Dionysian month of the Tauromenian or Naxian calendar is seen to have done.

iii. The name of this third month has been lost. It must however have corresponded to Mæmacterion in the Attic, and to November in the Julian calendar; and therefore to the seed-month in the natural year. And the principal feast of Demeter, as we have seen[r], among the Siciliot Greeks, having been attached to the first ten days of this seed-month, it is far from improbable that in all their calendars this month in particular was sacred to Demeter, and was called by some name expressive of that relation. In the Bœotian calendar[s], it was called *Δαμάτριος*.

iv. *Ἀπελλαῖος.* We reserve the more particular explanation of this name for the Macedonian calendar. All that we shall say in reference to it at present is, That, as the most natural and obvious etymon of the name is the substantive term *ἀπελλὴ* or *ἀπελλαὶ* in Greek; so this term had two significations, in one of which it denoted *σηκὸς* or stabulum, in the other *ἐκκλησία*. As derivable from *ἀπελλὴ* in the former sense, this month *Ἀπελλαῖος* denoted that in which it was usual to take up the cattle for the winter, and to keep them in covered buildings—consequently November in the natural or Julian year. As derivable from *ἀπελλὴ* in the latter sense, it would most properly denote the month of the principal *ἐκκλησία* or assembly, among the free communities of the ancient Greeks, that of the *ἀρχαιρεσίαι*, or elections of the magistrates of the year. And these, by the rule of the Greeks, always taking place in the last month of their official year, the proper place of the month so called, and for such a rea-

[p] Supra, page 180. 187. [q] Supra, page 423. *n.* [r] Supra, 418.
[s] Supra, 289.

son, must have been at the end of the year. And this appears to have been the place of the Apellæan month in the Naxian or Tauromenite calendar in particular; as is proved by the fact that the month so called, in every state of the calendar, under the form of an Ἀπελλαῖος β′, was the intercalary month.

v. Ἀσύλιος. The name of this month, as it stands in the marble at present, appears to have been considered by Franzius something unintelligible. But if he has rightly copied the original characters, there is nothing ambiguous about any letter but the first. The name stands at present ˥$^{CV}$ΛΙΟΥ—the last six of which are evidently ϹΥΛΙΟΥ, and the first may have been only an accidental corruption of Α. The actual name then, as recoverable from the marble even at present, must have been Ἀσύλιος. This fifth month in the order of the calendar, reckoned from Ἀρτεμίσιος, must have been Ἀσύλιος: and that being assumed as the name *de facto* of this month, there can be no reasonable doubt that its etymon, on grammatical principles, must have been ἄσυλον or ἀσυλία. But with respect to the meaning of this name, so derived; ἄσυλον in Greek would have denoted an asylum, a place of immunity, a place of security; and ἀσυλία the privilege or characteristic of such a place—immunity or security. And though, in the absence of all positive information on this point *ab extra*, it is difficult at this distance of time to assign the reason why a name so derived, and of so peculiar a signification, should have been given to this month in particular; the history of Tauromenium itself may perhaps supply that reason.

This month Ἀσύλιος, as part of the calendar of Naxus, must have been originally the first month in the year; and as the first month in that calendar, it very probably bore some other name. But let us suppose, that 43 years after the destruction of Naxus, and the dispersion of its inhabitants, B. C. 401, the survivors were again collected together by Andromachus, in this month, and the foundation of the new settlement, on the strong and impregnable rock of Tauromenium, laid in this month, B. C. 358. Is it inconceivable, under such circumstances, that, as a memorial of this event, the name of this month, whatsoever it was, might be changed, and another substituted for it, more proper for the natalitial month of a new foundation (like this of Tauromenium) just coming into existence, and more in unison with the natural characters of its site—and more expressive of the hope of security and immunity from such dangers as those to which the ancient Naxus had fallen a victim—derived from its situation itself? We have no better explanation of the name to propose than this. The reader will judge of it for himself. We will add only that if the year of the foundation was B. C. 358, it coincided with Period ii. 25, Cycle iv. 1 of the still existing octaëteric calendar; and none could have been more convenient *a priori*, for making a change in the name of the first month of the calendar.

vi. Καρνεῖος. The etymon of the name of this month in the calendar of Naxus or Tauromenium must have been the same as that of the month so called in any other of the calendars of the Greeks; and as entering under that name into various calendars besides, its explanation must be reserved for a future opportunity. We will observe only that the possession of a Carnean month was peculiar to the Doric calendars of Grecian antiquity; but here we have a Carnean month in the midst of a calendar of Ionic extraction: for the founders of Naxus, in Sicily, as we have seen, were Ionians. There would be some difficulty in accounting for this, did it not also appear that among these original settlers at Naxus, there were many of Doric, as well as more of Ionic, extraction: and these having brought with them to Sicily the characteristic solemnity of the Dorians, may well be supposed to have retained it there.

But here again it is necessary to observe, that the proper site of this Dorian solemnity, in the mother country, was the month of August or September; but in this Naxian or Tauromenite calendar, we find the Carnean month in February. And the proper Carnean month in the third type of the Hellenic octaëteris, as we have seen, from the calendar of Syracuse, and that of Gela, and that of Agrigentum, respectively, must have been one which corresponded to the Attic Metageitnion; and therefore the 8th month in that third type: but in this Naxian or Tauromenite calendar we find it corresponding to the second, and answering to the Attic Anthesterion.

This too is an anomaly which at first sight it would not be easy to explain, were we not at liberty to suppose that as the greater part of the settlers at Naxus at first, and their descendants ever after, were Ionians, and a minority only were Dorians—though the former might defer to the prejudices or customs of the latter, so far as to admit a Carnean month into their calendar, they might not choose to admit it at the regular season of such a month, which would have required the eighth month in their calendar, but instead of that only at the opposite quarter of the year, six months earlier, or six months later; in the second month of their calendar instead of the eighth; in the early spring instead of the late summer; in the Attic Anthesterion instead of the Attic Metageitnion, and in the Julian February instead of the Julian August.

vii. Δ. viii. *Δάλιος*. The name of the seventh month has been lost. That of the eighth is entire, with the exception only of a slight defect in the first letter, Λ instead of Δ. There can be no doubt that the name of this month was *Δάλιος*; and it is both illustrated and authenticated by the occurrence of the same name, and in the very same place in the natural and the Julian year, in the Rhodian calendar of antiquity, as we hope to see hereafter. *Δάλιος* is the Doric form of *Δήλιος*; in proof of which it is sufficient to produce only the following from Theocritus' epigram on Archilochus[t].

῏Η *ρά μιν αἱ* Μοῖσαι *καὶ ὁ Δάλιος ἠγάπευν* ᾿Απόλλων *.

* We must not be surprised to find a Doric name among those of the months in this instance even of an Ionic calendar. We have already explained that the

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[t] xix. 4.

Yet we are not of opinion that this month derived its name from *Δάλιος* as an epithet of Apollo; or that the month itself was sacred to Apollo. Apollo's month was the next, called *Ἀπολλώνιος*. The true explanation, in our opinion, is, that it was derived from the *Δήλια* of antiquity, Dorice *Δάλια*; not the festivity revived by the Athenians in the sixth or seventh year of the Peloponnesian war, and ever after celebrated in the month Thargelion, but the more ancient one of the same name, to which Thucydides alludes on the same occasion[v] as celebrated at Delos, from time immemorial, not only by the inhabitants of the islands, but by the Ionians and others from all parts. And the most interesting circumstance about the name of this month in the present instance is *this;* that from its own site in its proper calendar, it enables us to form a conjecture of the site and date of these more ancient Delia. The limits of this month in the third Type of the octaëteris at least must have been April 5 and May 5; and if it took its name in the present instance from those Delia, they must have been celebrated between those limits too. And here we should have reason to perceive and acknowledge the fact of a remarkable coincidence, were it only understood that these Delia of primitive Greek antiquity were really designed, and were in fact celebrated, as an annual or quinquennial commemoration of the Natale Mundi, and the beginning of things; and therefore must have been originally attached to the traditionary date of the Natale Mundi, April 25 or 24: almost the middle term in this Delian month of the old Naxian calendar, as limited by these two extreme dates, April 5 and May 5. But this is a point the illustration and proof of which must be reserved for a future opportunity. We will observe only, that these limits of the Delian month in the Naxian calendar were those of the Aprilis of Numa, in the Roman, April 5 and May 5 also; and his date of the Palilia, the xi. kal. Maias, in its normal state, was the date of the Natale Mundi, April 24[x].

ix. *Ἀπολλώνιος*. The name of this month must have been derived from that of the Hellenic Apollo. We may conclude therefore that it was sacred to Apollo: and it is no slight confirmation of this conclusion that the site of this month in the Naxian calendar corresponded to that of Thargelion in the Attic; and Thargelion was the Mensis Natalitius of Apollo. There was a month called Apollonius in the Elean or Olympic calendar, which corresponded to the Attic Hecatombæon. We are entirely of opinion that the Apollo, to whom this month was sacred, was the Apollo *ἀρχηγέτης*, spoken of by Thucydides supra[y], as patron or tutelary genius of Naxus from the first. And this month so called from, and so devoted to him, having been the fifth month in the primitive solar calendar of the Naxians, B.C. 542; it is not an improbable conjecture that their

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Doric element was largely intermingled at Naxus in particular with the Ionic. On the Tables themselves the Doric form of *ἱερομνάμονοι*, as a name of office, occurs regularly, instead of the Ionic one of *ἱερομνήμονες*.

[v] Lib. iii. 104.

[x] See our Origines Kalendariæ Italicæ, i. 388-390.

[y] Page 439, 440.

city was founded originally in this month: which in the year of the foundation (according to Mr. Clinton, B. C. 735, Æra Cyclica 3272) is seen from our Tables to have fallen June 22—July 22. The fifth month of the primitive calendar, and some particular day in that month, having been designated by that coincidence as the Natalitial month, and Natalitial day, of the city of Naxus itself; that would be a sufficient reason for calling the fifth month Apollo's month, and dedicating it to Ἀπολλὼν ἀρχηγέτης, B. C. 542.

x. xi. xii. Εὐκλεῖος. The names of the tenth and the eleventh months are both lost; that of the twelfth, as we have seen, remains entire. We have consequently nothing to remark on the former, except that the second of them, the eleventh in the order of the calendar at this time, the seventh originally, if we are right in the explanations proposed supra[z], must have been the month of the Κούρεια among the Siciliot Greeks; if at least they all agreed in the celebration of that solemnity, and at the same time. With regard to the month Εὐκλεῖος, a month of the same name occurs in the calendar of Corcyra; and we reserve what might be said in explanation of it for that calendar. All that we shall observe upon here, is its site in this calendar; which it appears was the last month, reckoned from Artemisius—the eighth, reckoned from Asylius. Consequently this month in the Naxian calendar must have answered originally to Metageitnion in the Attic, and to Carneus in the Doric calendar. We cannot help suspecting that the same explanation is to be given of the occurrence of a month so called at this period of the calendar, as of that of a Mensis Carneus at the opposite one. The month seems to have derived its name from a festival called Εὔκλεα, or Εὔκλεια, peculiar to the Dorians rather than to the Ionians; the proper place of which in this Naxian calendar would have been that of their Carnea, just as that of their Carnea would have been that of this month Εὐκλεῖος. These two months were just half a year asunder, in every state of the calendar alike. We may presume then that while the Naxians admitted these two Doric observances into their calendar in general, for the sake of the Doric part of their community, they purposely interchanged their places in the calendar itself, transferring the Εὔκλεια to the season of the Κάρνεια, and the Κάρνεια to that of the Εὔκλεια.

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[z] Page 418 supra.

# DISSERTATION VII.

## *On the fourth and fifth Types of the Hellenic Octaëteris.*

## CHAPTER I.

### Section I.—*On the relation of the different Types of the Hellenic Octaëteris, as yet discovered, to the natural Lunar Cycle of the Primitive Solar year.*

The reader can scarcely have failed to observe that the three Types of the Hellenic Octaëteris, which we have hitherto been considering, both in the Primitive Æra which we call the Æra Cyclica, and in the Julian Æra Vulgaris Before Christ, stand at an equal distance of time asunder; and that distance of time in each, and especially in the Æra Cyclica, neither more nor less than the equable period of 25 primitive solar years. It is almost superfluous to remind him however that the discovery of these different types, beginning with the first, has not been deduced from the laws and properties of the primitive equable year, but from *testimony*, from *historical facts*, from the *analysis of dates* which happen to be on record in terms of each of these calendars for the time being, and from the *nature* and *properties* of the *Octaëteric* cycle.

It may be assumed then that, as a matter of fact, not made out by inferential reasoning from the nature and properties of the equable solar year, but discovered by means of the same kind of proof in general by which any other past matter of fact is ascertained and authenticated; that a certain lunar correction of this equable solar year having been introduced among some of the ancient Greeks, and attached to a certain day in that year, Æra Cyclica 3445, another of the same kind was introduced among others of them, attached to the same day, just 25 years after the first, Æra Cyclica 3440; and a third among still more, attached to the very same day, just 25 years after the second, Æra Cyclica 3465.

Now this period of 25 equable solar years, as we have often had occasion to explain [a], was the proper lunar cycle of the primitive solar year. It was the interval, (appointed by nature itself, at the beginning of time in connection with the present system of things,) within which the decursus of solar and lunar time, regulated and measured by the equable period of 24 hours perpetually, having set out in any conceivable state of relation to each other, should return for a very long time (not less at first than 24 cycles of 25 such years) to the relations of origination. This natural lunar cycle of the primitive solar year, for want of a better name, chronologers are usually agreed to call the Apis cycle [b]; and we also, in deference to the example of others, have hitherto called the Apis cycle.

It follows from these two facts, one, That the epoch of each of these three types of the Hellenic octaëteris. (discovered as they have been on distinct and independent grounds of proof,) was the first day of the primitive Thoth or primitive Gamelion for the time being, the other, That the interval between the epoch of the first and that of the second, and between that of the second and that of the third, was precisely the measure of the Apis cycle, the natural lunar cycle of the primitive solar year: it follows, we say, from these two facts, i. That wheresoever these different lunar corrections were made among the ancient Greeks, there the primitive equable solar year must have been previously in use: ii. That all these lunar corrections of this preexisting solar year, each in its proper order of time, must have been directly derived from that solar year: iii. That wheresoever and whensoever the first lunar correction, so derived, was introduced among them, and whatsoever the effect which it might ultimately be found to have had on the introduction of similar corrections of later date elsewhere; it must have been assumed as the first principle of all such later corrections, that they too, like the first, should be directly derived from the preexisting solar year—that the transition from the old solar calendar to the new lunar calendar, which it was proposed to substitute for it, in no instance should be abrupt and violent—and *that* time only should be selected for the change, when the first day of the proposed new lunar year and the first day of the old solar year were coinciding together: i. e. when the first of the primitive Gamelion in these other instances also, as it had done in the first, was falling on the day of the new moon.

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[a] Fasti Cath. i. 97 : 111 : 560 : ii. 490 : iii. 368 sqq. Origines Kal. Italicæ, i. 143 : ii. 506.

[b] Cf. Fasti Catholici, i. 66.

### Section II.—*On the probability of the same kind of relation, as likely to characterise any other Types which may yet be discovered.*

The fact then having been ascertained in two instances at least, that, as soon as the first lunar correction of the primitive solar year had come into existence among the ancient Greeks, a second, analogous in all respects to the first, came into existence on the same day of the primitive solar year, just 25 equable years after the first; and a second, analogous to the first, having come into existence at this time, a third, analogous to both, came into existence on the same day of the primitive solar year, just 25 equable years after the second, and 50 after the first; the analogy of this fact, and the evident rule and method which regulated this proceeding—lead directly to the inference that, unless it could be considered probable that the primitive solar year was universally superseded among the Greeks by the lunar, at the date of the third of these changes, Æra Cyclica 3165, there must be just the same reason *a priori* to expect a fourth type of the same lunar correction in general, just 25 years after the third, and a fifth, just 25 years after the fourth—as there was at first, to expect a second just 25 years after the first, or a third just 25 years after the second.

Some limit indeed to the possible number of such corrections among the same people in general, must be assignable from the necessity of the case; for it cannot be supposed to have gone on indefinitely. And for the purpose of our argument at present, we may assume that this limit is assigned by the existence of a sixth type of the Hellenic octaëteris in general, analogous in all respects, except that of its proper epoch, to the first, or the second, or the third—and like each of them ascertained to have had an actual existence, independent of any reference to the nature and properties of the primitive solar year—the proper Octaëteric cycle of the Macedonian lunar calendar: the last and latest which is any where discoverable among the ancient Greeks. And yet it is very observable that the epoch of this too being determinable on distinct grounds of proof to the first of the primitive Gamelion, Æra Cyclica 3540, we have only to compare it with that of the first, the primitive Gamelion 1, Æra Cyclica 3415, to see that the distance from the one to the other, in the cyclical æra, was 125 years; and 125 years in the cyclical æra being equal to five cycles of 25 years, the inference from these two facts must be, that whether it was accident or design which produced the coincidence, or simply the reason of things, and the necessary tendency of the principles and assumptions which regulated this process all along, from the first correction of the primitive solar year (among the Athenians) to the last (among the Macedonians), there were 125 equable years and five Apis cycles: and there could not have been more, nor yet less, than the same number of years, and the same number of cycles, between the first and the last of six different lunar corrections of the same preexisting equable year, the last five of which were all made in imitation of the first, and under the same circumstances as the first.

*Scheme of the succession of Apis cycles in the Æra Cyclica, from Æra Cyc.* 3415 *to Æra Cyc.* 3540, *as proceeding parallel to the succession of types of the Hellenic Octaëteris, from B. C.* 592 *to B. C.* 468.

| | | | Æra Cyc. | | | | B. C. |
|---|---|---|---|---|---|---|---|
| Cycle i. | Gamelion | 1 | *3415 | Type i. | January | 19 | *592 |
| ii. | — | 1 | *3440 | ii. | — | 13 | *567 |
| iii. | — | 1 | *3465 | iii. | — | 7 | *542 |
| iv. | — | 1 | 3490 | iv. | — | 2 | 517 |
| v. | — | 1 | 3515 | v. | Dec. | 26 | 493 |
| vi. | — | 1 | *3540 | vi. | — | 20 | *468 |

Now that the first three and the sixth of these Apis cycles are not an hypothetical but an actual succession of their kind, is proved by the first three and the sixth types of the lunar corrections of the primitive solar year among the Greeks, discovered on distinct and independent grounds of proof, as connected with them, and as having come into existence at the same points of time respectively. And this being ascertained of the three first and of the last of the cycles in one of these lists, it is a strong ground of presumption *a priori* that the fourth and the fifth cycles in the same list will be proved to be actual too, by the discovery of two more types of the lunar correction among the Greeks; analogous in all respects but that of their epochs to the first three, and as necessary to complete the regular series of such types in *this* list, as the two corresponding Apis cycles to complete the succession of such cycles in the *other*.

This therefore is the point to which our attention must now be directed; viz. To make out and substantiate, if possible, by the same kind of evidence as before, the existence of a fourth and a fifth Type of the Hellenic octaëteris, analogous to the first three and the sixth; and each as necessary in its order of time to the continuity of the series as any of those. But before we proceed to this attempt, it may be proper to make an end of the consideration of the parallel succession of Apis cycles, by inquiring i. into the relation of each of these, in its proper order of time, to the series and succession of the Apis cycle properly so called: ii. into the relation of each of these, as the epoch of a corresponding octaëteric correction, to the mean or the true new moon of the time being; i. e. into the lunar character of the first of the primitive Gamelion, assumed at each of these epochs, on the principles of the Apis cycle, as the first of the mean or the true new moon.

## Section III.—*On the relation of the Apis cycle of the succession of the different Types of the Hellenic octaëteris, to the Apis cycle properly so called.*

The ἀποκατάστασις, as it is termed in Greek, of a given lunar and a given solar date in the primitive solar year, being neither more nor less than this period of 25 equable years, the discovery of a series of Apis cycles, running parallel to one of octaëteric corrections of the primitive solar year, however strongly it may appear to imply the previous knowledge, and even the previous use, of the proper lunar cycle of the primitive equable year, is no necessary proof of either—if, under the circumstances of the case, it appears to have been laid down, preliminary to those corrections, as a fixed and invariable principle, that they should neither be attempted nor carried into effect, except when the opportunity *served*; i. e. when the first day of the preexisting solar year, and the first of the proposed lunar correction, were falling out together. The first coincidence of that kind might have been accidentally determined; but if it had once been assumed as the principle of all future corrections of the same kind, the course and succession of such corrections themselves would necessarily exhibit this phenomenon, whether expected by the authors of them or not, viz. that of standing at the distance of 25 equable years asunder.

And yet it is very true, and we hope to have a future opportunity of laying the proofs of the fact before the reader, that the proper lunar cycle of the equable solar year was known to the ancient Greeks, long before the time of Solon; and not only known to them in theory but actually applied by them in practice. And though it must be admitted as a *possible* contingency that this knowledge might have been lost before the time of Solon, yet it must also be admitted that as soon as a regular communication between Greece and Egypt had been established, the Greeks could not fail to have again become acquainted with this cycle in Egypt; where it had never ceased to be known of in theory, or applied in practice, from the beginning of things itself. It is inconceivable at least that Solon, who is known to have visited Egypt before his correction of the calendar, and to have brought back with him much of the learning of Egypt in other respects, should not have become acquainted with their systems of time; and in particular with the practical administration of lunar in terms of solar, which he could not fail to observe was constantly going on among them, in the form of their Apis cycle.

For the history of the primitive cycle of this kind, and of that which was derived from it when the worship of the Apis was introduced, and became thenceforwards the distinctive cycle of the Egyptian Apis, we refer to the first Part of the present work [c]. It may not be unacceptable to the reader at present, to see in what manner the first lunar correction of the primitive equable year among the Greeks (that which we have seen reason to attribute to Solon) might have been derived from either of these cycles for the time being

i. Types of the primitive Apis cycle [d], continued down to the time of Solon.

| | | | | Epoch. | | Fasti Cath. | |
|---|---|---|---|---|---|---|---|
| Type | xxix | Æra Cyc. | *3026 | Thoth 8 | Luna $3^{a}$ | Period | xxv |
| — | xxx | — | 3151 | — | — $4^{a}$ | — | xxvi |
| — | xxxi | — | 3301 | — | — $5^{a}$ | — | xxvii |
| — | xxxii | — | 3351 | — 8 | — $6^{a}$ | — | xxviii |

The year of the correction of Solon, Æra Cyclica 3415, was the 65th year of this xxxiid Period; and consequently Cycle iii. 15 of the lunar, iii. 14 of the solar, cycle of this Type; epoch Pharmuthi 13, the Luna $6^{a}$, or Pharmuthi 8, the Luna $1^{a}$.

Æra Cyc. 3414–3415. B. C. 593–592.

| Month. | | Æra Cyc. | | | B. C. |
|---|---|---|---|---|---|
| i. Pharmuthi | 8 | 3414 | August | 24 | 593 |
| ii. Pachon | 8 | — | Sept. | 23 | — |
| iii. Paüni | 7 | — | Octob. | 22 | — |
| iv. Epiphi | 7 | — | Nov. | 21 | — |
| v. Mesore | 6 | — | Dec. | 20 | — |
| vi. Thoth | 1 | 3415 | Jan. | 19 | 592. |

Epoch of the lunar correction of Solon.

ii. Types of the Apis Cycle, properly so called [e], down to the time of Solon.

| | Æra Cyc. | Epoch. | | B. C. | Fasti Cath. |
|---|---|---|---|---|---|
| Type i. | 3034 | Thoth 11 | Luna $3^{a}$ | 973 | Per. xxv. |
| ii. | 3159 | — | $4^{a}$ | — | xxvi. |
| iii. | 3284 | — | $5^{a}$ | — | xxvii. |
| iv. | *3334 | — | $6^{a}$ | — | xxviii. |

The year of the correction was the 82d year of this ivth Type, Cycle iv. 7 = 6, Epoch Epiphi 12 [e], Luna $6^{a}$, Epiphi 7, Luna $1^{a}$.

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[c] Fasti Catholici, ii. 470–607. Diss. xiii. iv. 262–368 : 368–403 : 404–460. Diss. xviii. ch. i. ii. iii.

[d] Fasti Catholici, iv. 383.

[e] Ibid. ii. 543.

Æra Cyc. 3414–3415. B. C. 593–592.

| Month. | | Æra Cyc. | | B. C. |
|---|---|---|---|---|
| i. Epiphi | 7 | 3414 | Nov. 21 | 593 |
| ii. Mesore | 7 | — | Dec. 21 | — |
| iii. Thoth | 1 | 3415 | Jan. 19 | 592. |

Epoch of the correction of Solon.

## SECTION IV.—*On the Lunar Character of the first of the Primitive Gamelion, as the epoch of a series of Lunar corrections, as well as of a series of Apis cycles, from Æra Cyclica* 3415 *B. C.* 592, *to Æra Cyclica* 3540 *B. C.* 468.

The relation of true mean lunar time to solar, in the sense of equable, as they were originally adapted to each other, was such, that, as we have already observed, in the constant comparison of the Julian time of our Tables with the equable in the sense of Nabonassarian, or *vice versa*, from the beginning of things downwards, the former was not liable to lose a day in comparison of the latter in less than 600 equable years[f]; and even now, as Julian time and Nabonassarian equable time are both going on together, notwithstanding the change which the lapse of 58 centuries has made in the standard of the mean lunar synodic revolution, it is not liable to lose a day in less than 500 or 550 equable years. But in the constant comparison of the equable time of our Tables in the sense of cyclical, as contradistinguished to Nabonassarian, with the Julian, the ἀποκατάστασις of the same lunar date to the same equable date, so long as we continue to make use of a variable Julian type, cannot go on, after the usual manner in the Apis cycle, longer than one of our Julian periods; and at the end of each of these periods, and along with the ingress of a fresh Julian type, the given lunar date, remaining the same with itself in terms, instead of returning to the same solar date in the equable year as every 25 years before, returns to the next before it; and the given equable date, instead of returning to the same lunar one, is found to have risen to the next after it *.

* For examples in proof of this fact, as well as for the rationale or explanation of the principle of this seeming anomaly, we refer to our Fasti Catholici, ii. 523: cf. the Origines Kal. Italicæ, i. page xlix: and the Prolegomena of these Origines Kalendariæ Hellenicæ in particular.

[f] Fasti Catholici, iv. 386. Diss. xviii. ch. ii. sect. iv.

The reader therefore will now comprehend that as the first of these lunar corrections took its rise on the first of the Primitive Gamelion, and on the first of the mean or the true lunar month, dated from the conjunction, in the 81st year of our xxviiith Period, (the length of which was 140 Julian years,) the second, as taking its rise in the 106th year of the Period, would take its rise on the first of Gamelion, and on the first of the moon also; and the third, as still coming within the limits of the same Period, would do the same: but the fourth, which would come into being in the 16th year of the xxixth Period, though taking its rise on the same solar date, the first of Gamelion, could not do so on the same lunar date, the luna prima, but instead of that, on the luna secunda. And what would thus hold good of the lunar character of the first of Gamelion, as the epoch of the first lunar correction which fell within the limits of this xxixth Period, would hold good of it as the epoch of the two next, each of which came within the limits of the same Period. To bear date then on the first of the Primitive Gamelion would be a common characteristic of each of these corrections: to bear date on the luna prima also would be peculiar to the first three; but to bear date on the luna secunda would be the common distinction of the last three. But the luna secunda, reckoned from the change, being the same thing as the luna prima reckoned from the phasis, it would be a common characteristic of all these cycles, and all these corrections alike, to bear date on the first day of the Primitive solar year of the time being, and on the first day of the true new moon for the time being, reckoned from the change or from the phasis.

We have calculated the mean and the true new moons for each of these epochs, and the proper meridian of each of these different corrections; and we subjoin them here, along with the proper Julian date of the first of Gamelion at each of the same points of time—in order that the reader may see the proportion of the one to the other at those times.

*Mean and New Moons at the epoch of the different Types of the Hellenic Octaëteris in general.*

| | Epoch. | Æra Cyc. | | h. | m. | s. | B.C. |
|---|---|---|---|---|---|---|---|
| Type i. | Gamelion 1 | 3415 | January 19 | 0 | 0 | 0 | 592 |
| Mean n. m., meridian of Athens, | | | January 18 | 7 | 32 | 18 | m. t. |
| True .. .. .. | | | January 18 | 8 | 6 | 50 | — |
| Type ii. | Gamelion 1 | 3440 | January 13 | 0 | 0 | 0 | 567 |
| Mean n. m., meridian of Thebes, | | | January 12 | 6 | 24 | 54 | m. t. |
| True .. .. .. | | | January 12 | 15 | 50 | 56 | — |
| Type iii. | Gamelion 1 | 3465 | January 7 | 0 | 0 | 0 | 542 |
| Mean n. m., meridian of Argos, | | | January 6 | 5 | 16 | 46 | m. t. |
| True .. .. .. | | | January 6 | 17 | 34 | 59 | — |
| Type iv. | Gamelion 1 | 3490 | January 2 | 0 | 0 | 0 | 517 |
| Mean n. m., Thebes in Thessaly, | | | Decemb. 31 | 4 | 13 | 9 | 518 |
| True .. .. .. | | | Decemb. 31 | 10 | 43 | 2 | m. t. |
| Type v. | Gamelion 1 | 3515 | Decemb. 26 | 0 | 0 | 0 | 493 |
| Mean n. m., Thermus in Ætolia, | | | Decemb. 24 | 3 | 2 | 11 | m. t. |
| True .. .. .. | | | Decemb. 24 | 0 | 19 | 4 | — |
| Type vi. | Gamelion 1 | 3540 | Decemb. 20 | 0 | 0 | 0 | 468 |
| Mean n. m., Dium in Macedonia, | | | Decemb. 18 | 2 | 0 | 1 | m. t. |
| True .. .. .. | | | Decemb. 17 | 17 | 47 | 33 | — |

# CHAPTER II.

## *On the fourth Type of the Hellenic Octaëteris.*

### SECTION I.—*Julian Type of the fourth Octaëteric Correction of the Greeks.*

WE shall now proceed to adduce the proofs, which may still be discovered, of the actual existence of a fourth and a fifth Type of the Hellenic Octaëteris in general, derived from the Primitive solar year, just in the same manner as any of the three before them, and at the epochs of the fourth and the fifth of the Apis cycles, which we have supposed to have come into being along with those Types, and to have accompanied them perpetually. And though we admit that the evidence of the fact, in these two instances, is not so direct and conclusive, as in the three which we have hitherto been considering; it is sufficiently clear, and sufficiently to the purpose, to satisfy every unprejudiced inquirer, that the truth of the matter of fact, for which we are contending, besides being agreeable to analogy and the reason of things, and to every presumption which could be formed about it *a priori*, has the support of testimony *ab extra* also. We shall take these Types in their order; beginning with the earlier of the two. The first thing to be done is to exhibit the Julian scheme of the Type; which, if it ever had an actual existence, as derived from the Primitive equable year at this period of its history, must have been as follows.

*Fourth Type of the Hellenic Octaëteris.*

Epoch, Gamelion 1, Æra Cyc. 3490, Jan. 2, B. C. 517[†].

| Cycle. | Midn. | | B. C. | |
|---|---|---|---|---|
| i. | January | 2 | | *517 |
| ii. | December | 21 | 517 | 516 |
| *iii. | — | 10 | 516 | 515 |
| iv. | — | 29 | 515 | 514 |
| *v. | — | 18 | 514 | *513 |
| vi. | January | 5 | | 512 |
| vii. | December | 25 | 512 | 511 |
| *viii. | — | 14 | 511 | 510 |

## SECTION II.—*On the Lunar Correction of the primitive solar year in Thessaly.*

### i. Testimony of the Alkestis of Euripides.

The first argument of the existence of a national lunar calendar in Thessaly is deducible from the following passage of the Alkestis of Euripides[g]—

*Πολλά σε μουσοπόλοι*
*μέλψουσι, καθ᾽ ἑπτάτονόν τ᾽ ὀρείαν*

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[†] See vol. iii. Appendix, Table iv.

[g] ver. 445.

> *χέλυν ἔν τ' ἀλύροις κλείοντες ὕμνοις,*
> *Σπάρτᾳ, κυκλὰς ἁνίκα Καρνείου περινίσσεται ὥρα*
> *μηνὸς, ἀειρομένας*
> *παννύχου σελάνας·*
> *λιπαραῖσί τ' ἐν ὀλβίαις 'Αθάναις.*

Some of the learned have so construed this passage as to make it imply that, at the time of this allusion, the Carnea would fall out on the full of the moon; from which they have also inferred that the stated date of the Carnea in the lunar calendars of the time was the full of the moon. It is clear however to our judgment, that to put such a construction upon it, is altogether to mistake its meaning; the coincidence plainly asserted being not that the Carnean solemnity, but the Carnean month, and the full of the moon, would come round and fall out together. The order of the words in the Greek is this; *'Ανίκα κυκλὰς ὥρα Καρνείου μηνὸς περινίσσεται**, *ἀειρομένας σελάνας παννύχου*: and the sense of the words in English is this: "When the cyclical season of the Carnean month comes round, as *the* moon is rising to shine all night."

That there is consequently a reference in these words to some calendar or other, must be indisputable. The question is then, To what calendar, the Spartan or the Attic, (which seem to be referred to also,) or the Thessalian? And what calendar would be referred to in a play like this, but the Thessalian? at least if Thessaly had a calendar of its own. The scene of the play is laid in Thessaly; the argument of the play is a certain traditionary event in Thessalian history; the *Dramatis Personæ*, with the exception of Hercules, are all Thessalians. To what calendar then could any allusion to that of the time being, which might occur in the play, be referrible but the calendar of Thessaly?

We infer then from this allusion that, when Euripides wrote this play, there was a proper Thessalian calendar as much as a proper Spartan, or proper Attic one—but we infer from it also, (and that is the most important inference for our present purpose,) that the relation between these several contemporary calendars was such, that the first of a given month in the Spartan or the Attic was falling on or about the middle of the corresponding month in the Thessalian; and *vice versa*, the first of a given month in the Thessalian, on or about the middle of the corresponding month in the Spartan or the Attic. The first of the month Carneus, for instance, in the Spartan calendar, was falling on or about the 15th of the corresponding month in the Thessalian, and *vice versa*. In other words, the Spartan or the Attic calendar (which we will assume to have been the same at this time) being supposed the true standard of lunar time, the numenia, or first of the moon, in either of these calendars, was falling at this time on or about the panselenon, or fifteenth of the month, in the Thessalian; and the panselenon or 15th in the Thessalian was falling on or about the numenia or first in the Spartan or the Attic.

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* Dindorf reads *περινίσσεται*, but Matthiæ *περινείσεται*; and though we have taken the passage from Dindorf's edition, the reading of Matthiæ in this instance, in our opinion, would be most agreeable to the context.

The next question then is that of the date of this play. Heretofore this was supposed to have been lost; but from a Scholion, recently discovered by Dindorf[h], it appears it was brought out in the year of Γλαυκίνης*—which, according to the ordinary arrangement of the Tables, would bear date Hecat. 1, B. C. 439—according to the corrected one, Gamelion 1, B. C. 438. And this year having corresponded to Cycle xx. 3 of the old Octaëteric correction, (still in use, both at Sparta and at Athens,) the Alkestis must have been exhibited either at the Lenæa, Anthesterion 11–13 of this cycle and this year, Feb. 5–7, B. C. 438, or at the Dionysia, Elaphebolion 11–13, March 7–9. The allusions then which occur in this play to the relations of the Thessalian calendar of the time being to any other, like the Attic or the Spartan, it may reasonably be supposed must have been holding good at this time, and possibly this very year, B. C. 438. Now that the Attic calendar, and the Spartan as much as the Attic, (there being still no difference between them except in the names of their respective months,) must have been, at this period of the decursus of each, the true standard of lunar time, and might be assumed and referred to in that capacity, follows from the fact that this year, B. C. 438, was the 155th in the first Cyclical Period of each, and only five years *earlier* than the completion of the Period itself. The consequence of which coincidence was necessarily this, that the new and the full moons in either of these calendars, at this particular time, were almost, if not altogether, as true to those of nature, as in the very first year of the Period. Or if there could be any doubt on this point, it would be placed out of question by the following fact; That the first of Gamelion, Cycle xx. 3 of the Attic calendar, being assumed Dec. 28, B. C. 439, the 15th of Gamelion, Jan. 11, B. C. 438 was the date of the true full moon, as appears from the lunar eclipse, Jan. 11, at 11 A. M. for the meridian of Paris, the same year: and the first of Posideon B, the same year of the same cycle, being assumed Dec. 17, B. C. 438, that was the day of the true new moon; as appears from the solar eclipse also, Dec. 17, at 7.15 A. M. for the meridian of Paris, B. C. 438 too.

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* Γλαυκίνης in Diodor. xii. 30 is Γλαυκίδης. But the name is given correctly in the Scholia ad Acharn. 67, in the enumeration of successive archons, Glaukines, Theodorus, Euthymenes.

[h] See Mr. Clinton, F. H. B. C. 438. 4.

This then being the state of the Thessalian calendar, and this its relation to the Attic or the Spartan, for the time being, as the true standard of lunar time, B. C. 438—viz. that the numeniæ of the former were falling on the panselena of the latter, and the numeniæ of the latter on the panselena of the former; it follows from this state of the case, first, that the calendar, of which such an anomaly was holding good, must have been octaëteric of its kind; secondly, that it could not have been less than 80 years old, B. C. 438. In 80 years from the epoch of a given octaëteric correction, as our Table of Precession shews[i], this particular anomaly must begin to hold good; viz. that of the calendar numeniæ their falling on the πανσέληνα of the true lunar month, and that of the calendar panselena their falling on the numeniæ of the true lunar month; but as a general rule not before.

Reckon back then 80 years from B. C. 438, the year in which this apparent anomaly was perceptible in the calendar referred to in the Alkestis, and you come to B. C. 518; and reckon back 79, and you come to B. C. 517. One or other of these years consequently must have been the epoch of the proper cycle of the calendar, which was exhibiting this anomaly B. C. 438; and consequently, if that was the calendar of Thessaly, the proper epoch of the proper cycle of the Thessalian calendar. Between these years we cannot hesitate to fix on B. C. 517; there being nothing to distinguish B. C. 518 in the succession of the Types of the Hellenic octaëteric corrections in general, but B. C. 517 being critically the date of the fourth; required just at this particular period to carry on the succession of such types from the third, down to which we have traced it, to the fifth and sixth; earlier than which it does not appear to have ceased.

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[i] Vol. i. page 42.

We may safely conclude therefore, from the testimony of the Alkestis, (if we have explained and applied it rightly,) that the Thessalian calendar of the time of Euripides must have been octaëteric of its kind; and a calendar of that description which belonged to the fourth type of the Hellenic octaëteric correction of the primitive solar year in general. And as the national calendar of so large and important a division of the Hellenic community as the people of Thessaly, this calendar of the Alkestis so derived is abundantly competent to vouch for the actual introduction and use of this fourth type, in its proper order of time, on a large scale, as much as that of any before, or of any after it; even though this should be all, (as indeed it is almost all,) which we have to produce in illustration or confirmation of it *.

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* The reader will see that in our reasonings upon, and our inferences from, this passage of the Alkestis, 445–452, we have construed the description,

ἀειρομένας
παννύχου σελάνας—

as simply a poetical periphrasis for the πανσέληνον of the civil month, the 15th of the calendar reckoning. That this is the right construction may be proved as follows. The description comes in between the allusion to the Carnean solemnity at Sparta, and the Panathenaïc solemnity at Athens; at both of which contests of music and song usually taking place, the praises of Alkestis, it might very well be supposed, would be a favourite topic with the candidates for the prize, on the next occasion which should present itself. And it is worthy of remark, that this very year, B. C. 438, to which the allusions in the play appear to have been accommodated, Cycle xxxiii. 1, the 129th year from the epoch B. C. 566, would be Panathenaïc at Athens, in the ordinary decursus of the Panathenæa Majora; and B. C. 436, only two years later, the 241st from the epoch of the musical Carnea, B. C. 676, Cycle lxi. 1, would be Carnean at Sparta.

Now if these words,

ἀειρομένας
παννύχου σελάνας—

are not simply a description of the civil *πανσέληνον,* they are of course a description of the true; and as such, standing where they do, between this allusion to the Carnea at Sparta, on the one hand, and to the Panathenæa Majora at Athens, on the other, they can have no other reference than to the time of each of those solemnities in the natural lunar month. They can have no other meaning here, taken along with the context, than that both the Carnea in the Spartan calendar, and the Panathenæa in the Attic, coincided with the full of the moon. Now this, we know, would be false of the Panathenæa at Athens; the calendar date of which, at all times, was the 28–30th of the month; and the natural lunar date, as we have seen, at this time, B. C. 438, even in the octaëteric calendar of the Athenians, was the 28–30th of the moon too. And as to the Carnea in the Spartan calendar, though many of the learned have inferred from this passage of the Alkestis, more than for any other reason, that they must have coincided with the full moon of the natural month; we hope to prove in due time, though we could not digress to do so at present, that their stated date was the true luna septima of their proper month, and that month the same which in the octaëteric correction at Sparta coincided with the Attic Metageitnion. They began consequently on the true luna septima of their proper month, which in the year of the Alkestis, B.C. 438, was falling on August 25; and though they certainly lasted nine days, and therefore, if they began on the luna septima, would not be over before the luna quintadecima, (i. e. before the true *πανσέληνον* itself,) yet this allusion in the Alkestis, if it implies any thing of the true relation of the Carnean solemnity to the moon, must imply that it *began*, not that it *ended*, at the full of the moon. And if it could not imply *that* without implying what was false in point of fact, and certainly known to Euripides to have been so; it can imply nothing in this instance of the relation of the Carnean solemnity to the moon at all, any more than of that of the Panathenaïc to the same. It follows that the allusion is simply to the relation of the Carnean month at Sparta, and of the Panathenaïc month at Athens, to the civil full moon, or *πανσέληνον,* of the Thessalian calendar; implying that the first of either of the former at this time was falling on the 15th of the latter: a state of the case, which, as we have seen, was strictly holding good, B. C. 438, in the 80th year of the decursus of the Thessalian calendar, and the 155th of that of the Spartan or the Attic.

The reader will also perceive, that we refer the allusion to the Carnean month, to the Spartan calendar, not to the Thessalian; not only because it is so determined by the context, but because while we do know that there was a Carnean month in the Spartan calendar, we do not know that there was one in the Thessalian, or rather, as we shall probably see by and by, when we come to treat of the months of the calendar of Lamia, (which appears

## ii. Date of the *Αὐτονομία* of Thessaly, B. C. 196—195.

The first period of this fourth type would come to an end B. C. 357; and if the type itself was continued for another period, that also would expire B. C. 197, and B. C. 196 would be only the second year of a third of the same kind.

Now this year, B.C. 196, was the date of the restoration of their independence, or *αὐτονομία*, as it was styled in Greek, to the different cities and communities of the Greeks, by Titus Flamininus, after the conclusion of the war with Philip; publicly too proclaimed at the Isthmian Games[k]*. The states of Thessaly were among these; and it appears from Eusebius that a new æra began, and continued for a time, to be reckoned in Thessaly, from this occasion. Thessali vero, sicut alii quoque Græcorum qui Philippi tributarii fuerant, acceperunt a Romanis libertatem ut suis legibus viverent; et quidem anno primo anarchiam patitur Thessalia, deinde

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to have represented that of Thessaly in general,) there could have been no such month in the calendar of Thessaly. There was no room for any such month in that calendar. Nor is this extraordinary. The Carnea were a Dorian observance, and the *Μὴν Καρνεῖος* was characteristic of the Dorian calendar. And the Thessalians not having been Dorians, there is no reason to suppose that, as a nation, they had either the Carnean solemnity, or the Carnean month.

* We may have occasion to consider the year more particularly hereafter, in illustration both of the Isthmian and of the Nemean cycle. Livy indeed dates it two years too late, U. C. 559, B. C. 195–194, xxxiv. 50. cf. 43, 48. though B. C. 194 also was an Isthmian year. We will observe however that Eusebius, Chron. Arm. Lat. 1. 340, confirms this date of the *αὐτονομία* of Thessaly, B. C. 196, by making that year itself a year of *ἀναρχία*; i. e. simply without a prætor (no doubt because the declaration of independence took place when the current year was already half over, and no magistrate could be appointed until the end of that year, six months later. And then he has the first regular prætor of the autonymy, Pausanias, of Pheræ, whose year, on this principle, must have been B. C. 195. Then the next, Amyntas, of Pieria, whose year on the same principle would be B. C. 194. And of the year of this prætor he observes, Cujus diebus Titus iterum Romam reversus est: and we know from Livy and others that the actual year of his return, and of his triumph for his successes in the war with Philip, was U. C. 579, B. C. 194.

[k] Plut. Flamininus, x. xi. xii.

vero duces annui ex multitudine eligebantur[l]. A list of these magistrates follows, in which there are 18 names[m]; the first, that of Pausanias, B. C. 195, the seventeenth, Phyrinus, B. C. 179; in whose year the death of Philip, the king of Macedonia, is dated: after that the 18th, B. C. 178, with which the list is terminated.

Now with regard to the year of the death of Philip; Livy makes it the consular year of Q. Fulvius and L. Manlius: Perseus, Q. Fulvio L. Manlio consulibus, regnum accepit: a senatu rex est appellatus M. Junio A. Manlio[n]. These last represented U. C. 576, which by the rule of the consular ingress at this time bore date on the ides of March, December 24, B. C. 179. The recognition of Perseus consequently, some time after the ingress of this consular year, must have been some time B. C. 178: and as referred to the contemporaneous succession of Thessalian prætors, and the continuance of the *αὐτονομία* of Thessaly, beyond the reign of Philip into that of Perseus, this coincidence is of much importance.

For Eusebius proceeds to observe[o], A centesimæ decimæ quartæ Olympiadis anno secundo, quo tempore Philippus (Aridæus) suscepit res (sc. publicas regni) usque ad Philippi Demetrii (filii) obitum,—quod quadrat centesimæ quinquagesimæ Olympiadis anno secundo, mensique quinto, efficiuntur sane anni cxliv et menses v. The accuracy of this statement in general will appear from the fact that 144 years, reckoned from B. C. 323, the year of the death of Alexander, do actually terminate in B. C. 179, the year of Philip's death. And as to the precise time of this death, which appears to be defined in it also (in terms of the Olympic æra and Olympic calendar)—the second year of Ol. cl. by the Olympic rule would begin to bear date on the eleventh of the Olympic Apollonius, or the Attic Hecatombæon, Period iv. 26, July 23, B. C. 179; and the fifth month of that year, reckoned from Hecatombæon 11, exclusive, would begin Posideon 11, December 18, the same year.

These two dates then, for the death of Philip—Livy's, as not earlier than the ides of March, U. C. 576, December 24,

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[l] Chron. Arm. Lat. i. 340, 341, 342. cf. ii. 237. Olymp. cxlvi. 4. and Thes. Temporum, Jerome, Olymp. cxlvi. 1.

[m] Ibid. 342.

[n] xlv. 9. cf. xli. 5. (xl. 59.) xl. 43.

[o] Loco citato.

B. C. 179, and that of Eusebius, not earlier than the 18th of December, the same year, appear to confirm each other; and they would both be true, if the event itself really happened between December 24 and the end of that month, this very year.

Now it is here to be observed that, whensoever it happened, it came within the year of the 17th prætor of the *αὐτονομία,* Phyrinus[p]; and consequently the accession of Perseus, and his recognition by the Roman senate, within that of the 18th, Philippus: and yet it is also observable that as Eusebius has given us two lists of these prætors, so in the first list Phyrinus is the last name[p], as if the series had terminated with him; in the second[q] Philippus is the last name, and Phyrinus is the last but one. Mr. Clinton argues from this distinction (and in our opinion justly[r]) that the series of really independent prætors in all probability terminated with the last of those of the reign of Philip; and that the independence of the country was speedily superseded by Perseus' recovery of the authority, or the influence, before possessed by his father Philip: until he too was deprived of it by the Romans, after the war which he waged with them.

If so, it appears to be spontaneously suggested by this coincidence that the years of these prætors of the *αὐτονομία* must have borne date from about the same time as the death of Philip; that is, the end of the month of December, or the beginning of the month of January, to which that death has been determined. For let it be supposed they bore date at any other quarter of the year, like the summer solstice, or the autumnal equinox. In that case the year of Phyrinus could not have been more than half over, and might not have been more than a quarter over, at the accession of Perseus; and that was followed so soon after by his recovery of the former authority and jurisdiction of the kings of Macedonia in Thessaly, that the series of the magistrates of the *αὐτονομία* could scarcely have failed to be closed with his name, as the last on the list. But if the Thessalian year of office was now bearing date at the beginning of January, Phyrinus would go out of office, and Philippus would come in, almost at the same time at which Perseus succeeded his father—the end of December, B. C. 179, or the beginning of January, B. C. 178—and the latter would continue some time, more or less, the independent magistrate of an independent community, even after the beginning of the reign of Perseus; and his name would descend to posterity as one of the prætors of the *αὐτονομία*, though the last of the number.

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[p] Chron. Arm. Lat. i. 341. [q] Ibid. 342. [r] F. H. iii. 76. B. C. 178.

To the other arguments therefore of the actual existence of a Thessalian calendar, which must have borne date at the same time of the year as the fourth type of the Hellenic octaëteris in general, this of the beginning and duration of the *αὐτονομία* may certainly be added. Whether this calendar was still octaëteric, or had been previously superseded by the Metonic, would make no difference to the inference founded upon the succession of the prætors of the *αὐτονομία*; provided it continued to begin at the same time of the year as at first. We should be entirely of opinion however that, even if it had continued to be octaëteric down to the epoch of the third period, B. C. 197, it would be superseded by the Metonic correction at that point of time. And as to the probable epoch of this correction—if the original epoch of the octaëteric cycle was Jan. 2, the *luna prima* dated from the phasis, B. C. 517, it would require no correction at the end of that period, but might still continue to be Jan. 2, the *luna prima* dated from the change, B. C. 357; and even at the epoch of the third period, B. C. 197, it might still be considered to require no correction, and might still be allowed to continue what it had been until then. The Julian epoch of the Metonic calendar of Thessaly therefore, regularly derived from its original octaëteric one, would probably be Jan. 2, or at the latest Jan. 3, B. C. 197; and the *αὐτονομία* having been restored to them B. C. 196, and lost again B. C. 178, by a curious coincidence it must have happened that the *αὐτονομία* lasted one cycle of their Metonic calendar complete, or nearly so.

### SECTION III.—*On the Metonic Calendar of Kephaledum, or Kephalœdium, in Sicily, and the Octaëteric Type from which it was derived.*

The next probable argument of the truth of the fact for which we are contending, the existence of lunar calendars among the Greeks, the same with the Octaëteric correction of Type iv, or directly derivable from it, is supplied by the testimony of Cicero, contra Verrem.

It appears from these orations contra Verrem[s] that at Kephaledum in Sicily in the time of Verres the highest office was that of Chief Priest, of some denomination or other; to which an election was made every year in a stated month. In one of the years of Verres' administration there were two candidates for this office; one of them called Herodotus, the other Climachias: the former marked out and designated beforehand by the unanimous judgment of his fellow citizens as the proper person for it. But as he happened to be absent at Rome, and was expected to return only just in time for the election, Climachias took advantage of the opportunity thus afforded him, to make interest with Verres in order to antedate the time of the election, and so get himself nominated in the absence of his rival. In what manner this was effected will best be learnt from Cicero's own account of the transaction.

Cephaledi mensis est certus, quo mense sacerdotem maximum creari oporteat . . . Herodotus Romæ erat. satis putabat se ad comitia tempore venturum, si pridie venisset—He proceeds[t]: Est consuetudo Siculorum ceterorumque Græcorum, quod suos dies mensesque congruere volunt cum solis lunæque ratione, ut nonnunquam, si quid discrepet, eximant unum aliquem diem, aut summum biduum, ex mense; quos illi ἐξαιρεσίμους dies nominant: item nonnunquam uno die longiorem mensem faciunt, aut biduo. quæ iste cum cognovisset, novus astrologus, qui non tam cæli rationem quam cælati argenti duceret, eximi jubet non diem ex mense, sed ex anno unum dimidiatumque mensem; hoc modo ut, quo die verbi causa esse oporteret Idus Januarias, eo die Kalendas Martias proscriberet . . . dies is erat legitimus comitiis habendis. eo modo sacerdos Climachias renunciatus est. Herodotus cum Roma revertitur, diebus ut ipse putabat quindecim ante comitia, offendit eum mensem qui consequitur comitialem, comitiis jam abhinc triginta diebus habitis. tunc Cephaleditani decreverunt interkalarium XLV dies longum, ut reliqui menses in suam rationem reverterentur[v].

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[s] Oratio vii. Actio ii. Lib. ii. 52, 128.

[t] vii. ii. 51, 129.

[v] Ibid. § 139.

The first remark which we may make on this account is that, though Cicero speaks here of its being the rule and practice of the Greeks to correct their calendar by taking out certain days at stated times, yet since he adds that the number so taken out was only one, or at the utmost two, he could not have meant the ordinary suppression of a day every other month of the calendar, all round the year: he must have alluded to some extraordinary case of exemption, like that which never took place, in the constant administration of a calendar like the Metonic, except at the end of a cycle or a period. The Callippic correction of the Metonic cycle required one such extraordinary exemption of a day at the end of every four cycles, or 76 years; and the Hipparchean correction of both, if it was ever reduced to practice among the Greeks, would have required an extraordinary exemption of two days, at the end of four Callippic periods, or 304 years. Cicero might have known of this in theory, as well as of the Callippic correction, with which he could not fail to have been familiar; and knowing of both, and of their relation to each other, and to the common or ordinary Metonic cycle, so generally in use among the Greeks in his time, he might speak of the rule of exemption in the Greek calendar, accordingly; as one day at stated times, and even two sometimes.

But when he speaks of the reverse of this process, yet as directed to the very same end and purpose, that of adjusting the course of civil lunar time to true, by inserting sometimes one day *extra*, and sometimes two; it is equally clear he must have had in his mind a very different form of the calendar from the Metonic, and one that was liable to lose, not to gain, upon the moon, and could be kept true to it only by intercalating one day or two days, at stated times; not by taking them away from it. And a calendar of this kind, as we have often had occasion to explain, could have been nothing but the Octaëteric; which was liable to lose a day and an half upon the moon every cycle, and could be kept in the same state of relation to it perpetually, only by giving it one day *extra* at the end of the first cycle, and two at the end of the second—or vice versa, two at the end of the first, and one more at the end of the second.

In this testimony of Cicero's therefore to the state of the lunar calendar among the Greeks of his time and of that of Verres, we have evidence both of the continued use of the Metonic cycle, subject to the Callippic correction, if not also to that which was first pointed out and prescribed by Hipparchus; and also of that of the Octaëteric, subject to the particular correction which was required by its own inherent tendency to fall back upon the moon: with this difference only, that instead of being applied to it once for all at the end of the period of 160 years, peculiar to this cycle, (as it was intended to be by Solon, when this cycle was first introduced by him, and as it seems to have been in all the cycles of this kind which we have hitherto been considering,) in these calendars, to which Cicero alludes as regulated and administered in this manner, it must have been applied every cycle.

The next observation which may be made on the same account is this: There must have been three months in the calendar of Kephaledum at this time, in sequence, each of them thirty days long. For we perceive that, according to Cicero's own computation, there was a clear reckoning of *thirty* days from the comitia to the return of Herodotus, and a clear reckoning of *forty-five* from that return to the rectification of the calendar by means of an extraordinary intercalation: that is, a clear reckoning of *seventy-five* or two months and an half in all, between the comitia and this rectification. It appears from the account too that the calendar was rectified in such a manner that the first day of the month, which should always have followed the comitial month, was brought again into its regular place relatively to that. There must consequently, between the day of the comitia as antedated by Verres and the first day of the month next in order to the comitial, including the extraordinary intercalation in question, have been a clear interval of seventy-five days: and that is sufficient to prove that the decree, which anticipated the comitia, must have been passed not at the *beginning*, nor at the *end*, but at the *middle* of the month; otherwise an interval of seventy-five days from the date of that decree could not have terminated at the beginning of the month, but must have extended to the middle of it.

The decree of Verres then, which antedated the comitia 15 days, must have been passed on the 15th of the month; as might have been collected even from the case which Cicero supposes, to make it intelligible to his Roman hearers—that of a similar decree passed on the Ides of Januarius in the Roman calendar, declaring them the kalends of Martius, and consequently anticipating the kalends of Martius in the Roman calendar 45 days too*. Assuming also that the comitial month of Kephaledum was always the last in their year, and the month, next to it, properly the first, we must conclude that the decree was passed *de facto* on the 15th of the *third* month before the end of the year; and consequently that between the first of this month and the first of the first month, the first day of the next year, there must have been a clear reckoning of 15 + 75 or 90 days in all: and if so, that the last three months in the year at this time must have contained among them 90 days; and therefore each of them 30.

Now in the Octaëteric cycle such a coincidence as that was impossible. No three months in that cycle, in sequence, under any circumstances could have contained more than 89 days in all. In the Metonic cycle it was not impossible; but it could happen only at the end of the cycle—when, by the law of the cycle, each of the last three months would be *plenus* alike, and all three would contain among them 90 days exactly. We infer then from this account of Cicero's that the calendar of Kephaledum, before this incident happened there, must have been Metonic; and that the precise time, at which this irregularity in its administration took place, must have been just at the end of one of its proper cycles, and just at the beginning of another.

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* The ides of Januarius fell on the 13th of the month. Cicero's calculation in this instance stood as follows:

| | | |
|---|---|---|
| Ides of Januarius .. | 13 | of Januarius. |
| Add .. .. | 45 | |
| | 58 | |
| Cast off .. | 57 | Jan. 29 days + Feb. 28 |
| Kalends of Martius .. | 1 | of Martius. |

Cf. our Origines Kalendariæ Italicæ, i. 520, 521.

Now the several years of Verres' administration of the province of Sicily having been B. C. 73, B. C. 72, and B. C. 71 respectively[x]; let us apply each of these to the proper cycle of any of those Metonic corrections of the older Octaëteric cycle, the dates of which have been already ascertained; viz. the Attic, B. C. 432; the Spartan, B. C. 424; the Bœotian, B. C. 407; the Syracusan, Geloan, or Agrigentine, B. C. 382, or the Achæan, B. C. 222. There is but one of the number, in the proper cycle of which any of these three years, B. C. 73, B. C. 72, or B. C. 71, would exhibit the coincidence in question of falling critically in the last year of one, and in the first year of the next: and that one is the Attic, the first and oldest of these corrections among the Greeks any where. B. C. 71 indeed would answer both to Period v. 57 exeunte, and to Period v. 58 ineunte, of the Attic Metonic calendar. But, if this was the coincidence, intended by Cicero, it would imply that both the old octaëteric correction, and the original Metonic correction, had been adopted at Kephaledum in Sicily at the very same time as at Athens: and though it cannot be deemed that even such a coincidence as that was possible, it must be admitted to be in the highest degree improbable.

The epoch of the first lunar corrections of the primitive solar year in Sicily, and among the Siciliot Greeks, in the principal instances at least, (those of the leading and most influential of the Greek settlements there,) coincided, as we have seen, with that of the third type of the Hellenic octaëteris in general, Jan. 7, B. C. 542. But it does not follow that because Syracuse, Gela, Agrigentum, and Naxus, and probably many other contemporary cities of Sicily, discarded their old and original solar calendar at this time, and adopted the lunar in its stead, every other Greek city on the island (those especially which were most remote, and of least note and importance, as Kephaledum in particular, may well be supposed to have been[y]) would do the same thing and at the same time. And if they did not take advantage of the opportunity first presented them of doing this at the same time and in the same way as so many of their contemporaries, B. C. 542, they would have no alternative but to wait 25 years, before they could have another, of doing it again in the same way.

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[x] See our Origines Kalendariæ Ital. iii. 301, 302.

[y] Of the article on Cephalœdium in Smith's Dictionary of Classical Geography.

Let us be permitted then to assume that this Greek city of Sicily in particular corrected its calendar only at the date of the fourth type, B. C. 517—fixing its epoch to the first of the primitive Gamelion that year, January 2. The first period of this fourth type would expire, and the second would begin, Jan. 2, B. C. 357: and the epoch, as dated originally from the phasis, would require no correction at the end of the first period only, to make it true to the moon. The end of this period and the beginning of the next would be the proper time for adopting the Metonic instead of the Octaëteric correction, if the people of Kephaledum were inclined to take that step; and for transferring the head of their calendar too, from the winter solstice to the summer solstice, and from the first month, Jan. 2, to the seventh, June 27, B. C. 357, if they were inclined to take that step also, at this time, as others before them had done B. C. 382.

Let us be allowed to assume then, until proof to the contrary can be produced from testimony, or from some incontrovertible matter of fact, that each of these things was done at Kephaledum B. C. 357. The proper date of their Metonic correction consequently having been June 27, B. C. 357, the following will be the scheme of its successive Callippic periods from the first to the fourth.

*Callippic Periods of the Metonic Cycle of the Calendar of Kephaledum.*

Epoch, June 27, B. C. 357.

| | | |
|---|---|---|
| Period i. | June 27. | B. C. 357. |
| ii. | June 27. | 281. |
| iii. | June 27. | 205. |
| iv. | June 27. | 129. |

| | |
|---|---|
| Period iv. 57. | B. C. 73–72. |
| — 58. | 72–71. |

It appears from this scheme that the last year of the third cycle of this fourth period, and the first year of the fourth, would both meet in the first half of B. C. 72, the second year of Verres' government of Sicily; which, for many reasons, was the most likely *a priori* to have been the date of this particular transaction, and of many others of like kind, of which Cicero has given the account in his celebrated actions. It could not fail to be the case then that, just at this period of the administration of the calendar, there must have been three months in sequence, all before the end of the year, each of them *thirty* days long.

It is not improbable also *a priori* that, when the people of Kephaledum transferred the head of their calendar from the first month to the seventh, they transferred the intercalary month too; so that it might still precede the first month in their new calendar, as it had done in the old. In that case one of these three months at the end of the year, Period iv. 57, and properly the last of them, must have been the intercalary month; and it is conceivable that this very circumstance might have furnished Verres with something like a pretext for what he was about to do—strike out 45 days at once, in order to antedate the comitia. He might have pretended that the intercalary month was no regular part of the year, and that he was not bound to take it into account; or that the intercalary month was not the proper comitial month, and that he was anticipating the regular time of the comitia possibly only 15 days, and at the utmost not more than 30. Moreover, one intercalary month being required by the rule of the cycle just at this period of its decursus; the intercalation, decreed by the people themselves to undo this proceeding of Verres'—would not be irregular *per se*, only in its magnitude, and in the number of days required by the special circumstances of the case.

We may probably therefore arrange the several steps in these proceedings under their proper dates, both in the calendar of the time, and in the Julian as follows.

*Calendar of Kephaledum, Period iv. 57 exeunte.*

Intercalary. The intercalary month the thirteenth: and also this year the comitial month.

| | |
|---|---|
| 15th of the eleventh month, April 12, B.C. 72. | Edict of Verres. |
| 16th — — — 13 | First of the mensis comitialis of Verres. |
| 15th of the twelfth month, May 12 | Last day of the comitial month. |
| 16th — — — 13 | First of the first month after the comitial. |
| — | Return of Herodotus. |
| — | Mensis interkalarius of 45 days, from the 16th of the 12th month, May 13, to the first of the first month, June 27. |

Period iv. 58, Cycle iv. 1. First of the first month June 27, B.C. 72.

## APPENDIX TO CHAPTER II.

*On the order, and names, and etymons of the names, of the months in the Thessalian Calendar.*

In the collection of Greek Inscriptions of which we have hitherto made so much use, nothing occurs, so far as we know, to supply an answer to this question; Whether there was anciently such a thing as a national calendar of Thessaly? and if there was, what were the names, and what was the order, of its months? But as fresh inscriptions are perpetually coming to light, it so happens that testimonies of this kind, not yet incorporated in that great collection, have been discovered; by the help of which a very probable answer may be returned to each of these inquiries.

These inscriptions appear to have been found at the ancient Lamia, a city situated near the confluence of the Achelous and the Spercheius, in Thessaly[1]—which gave name to the Bellum Lamiacum, B. C. 323–322; the last struggle of the Greeks of the mother country, for the recovery of their liberty and independence. They were first made public at Athens, in the Archæological Journal (Ἐφημερὶς) for August and September, 1838: and they were republished at Leipsic by Dr. Ludolf Stephani in 1843. We have not seen either of these publications. Our acquaintance with these inscriptions, as far as it extends, is derived from the account given of them in Curtius' Anecdota Delphica[2], or Professor Hermann's Dissertation on the Greek months[3]. And though neither of these is so minute and circumstantial as that of Stephani appears to have been, Curtius' is sufficiently so for our present purpose, and for the text of the inscriptions on which we propose to make our observations.

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[1] Strabo, ix. 5. 300 b–301 b. cf. Liv. xxxvi. 25: Diodor. xviii. 13.

[2] Berolini, 1843.

The subject-matter of all these inscriptions seems to have been the same; the recovery of their liberty by slaves, in such and such years and months, according to the forms and conditions prescribed on such occasions: and when entire they seem to have run in a similar manner; premising first of all the style and name, or other personal designation, of the chief magistrate (or eponym) of Thessaly, for the time being (whose proper title was that of Στρατηγός); then the names of the parties concerned in these acts, and those of the months in which they were taking place. And from this circumstance more especially, it seems to be only a reasonable inference that, though these proceedings were all recorded at Lamia, and probably all took place at Lamia, the months in which they were dated were not those of the calendar of Lamia in particular, but those of the calendar of Thessaly in general—or not more peculiar to the calendar of Lamia than to that of any other city of Thessaly. Consequently that the months, which occur in these inscriptions, are those of the national calendar of Thessaly, for the time being.

## *Inscriptiones Lamiacæ*[4].

Tit. i. *Στραταγέοντος Ἀγαθάνορος τοῦ (Κλε)υδάμαντος Γομφέ(ω)ς· ταμιεύοντ(ος τ)ᾶς πόλιος Σωσιπάτρου τοῦ Δάμωνος, ἀπελεύθεροι δεδοκότ(ε)ς (ἐ)ν τ(ὰν) στά(λ)αν τοὺς δέκα πέντε στατῆρ(α)ς· μηνὸς Βωμίου· Νικήφορος Ἀλεξάνδρου, κ̀, τ. λ. Χρυτταίου· Σώσυλος Πύθωνος, κ̀, τ. λ.*

Here we have the names of two months at least, Βώμιος and Χρυτταῖος, the latter of which must have followed the former; though whether without any other between them does not appear.

Tit. ii. *Στραταγέ)οντος Ἰσαγόρα Νυσ(σ)άνδρου? Λαρεισ(αίου· ταμιεύοντος δὲ τᾶς πόλιος Πυλάδα τοῦ Νικασι(β)ούλου, ἀπελεύθερο(ι κ̀, τ. λ.* (as in Tit i.) *Βωμίου· (ὁ δεῖνα) κ̀, τ. λ. Ἀρέου· Νικαπός κ̀, τ. λ. Χρυτταίου· Βάκχιος κ̀, τ. λ. Ἱπποδρομίου· Νίκα κ̀, τ. λ.*

Here too are four months, Βώμιος, Ἄρεος, Χρυτταῖος, Ἱπποδρόμιος, at least, which must have preceded and followed each other in this order; though not necessarily without any other, in any of these instances, between them.

Tit. iii. *Στραταγέοντος Λέοντος κ̀, τ. λ. μηνὸς) Θριξαλλίου· Ἀπολλώνιος κ̀, τ. λ. μηνὸς Θριξαλλίου κ̀, τ. λ. μηνὸς Θρι(ξαλλίου Διονύ)σιος κ̀, τ. λ.*

And here the name of another, Θριξάλλιος, occurs three times.

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[3] Göttingen, 1844. pag. 99.

[4] Anecdota Delphica, pag. 14–16.

Tit. iv. Σ(τραταγέοντος κ̀, τ. λ. (μ)ηνὸς (Β)ω(μ)ίο(υ) Εὐκολίνα κ̀, τ. λ. Γεύστου· Εἰράνα κ̀, τ. λ.

The name of Βώμιος occurs again here, and the name of another month, later than Βώμιος, (though how much later does not appear,) the casus rectus of which, as inferrible from the genitive Γεύστου, we apprehend, with Curtius, to have been Γεύστης, rather than, with Stephani, Γευστός.

And forasmuch as it appears also from Curtius[5] that, in this fourth Titulus, ad vers. 10 (six lines lower than the above from Curtius), Stephani discovered the traces of another name, which in his opinion ended in ΡΟΝΟΣ, one more must be added to the number recoverable from this Title, later than Γεύστης at least; the true name of which in full we may see reason by and by to conclude must have been Κρόνιος.

Tit. v. On this Title, which in Stephani's edition was No. 26, three months at least (though their names are lost) must have been mentioned before vers. 4, where Μηνὸς Ἱπποδ(ρομίου, κ̀, τ. λ.) occurs—and then another, which though not given here, yet according to Stephani[6], must have been Πάναμος. After this, Μηνὸς Ἀπελλαίου, still entire, and Μηνὸς Βου)κατίου, κ̀, τ. λ. So that in this Title, upon the whole, seven months at least must have been once recorded, three before Ἱπποδρόμιος, and three (Πάναμος, Ἀπελλαῖος, Βουκάτιος) after.

Tit. vi. Vers. 3 sqq. Μηνὸς Γεύστου Δορκίων κ̀, τ. λ. Μηνὸς (Γ)εύ(σ)του Ὀλυμπιὰς κ̀, τ. λ. Μηνὸς Λυκέου Σώστρατος κ̀, τ. λ. Μηνὸς Ἱπποδρομίου Σωσίχα κ̀, τ. λ.

Here three at least occur, Γεύστης, Λύκεος, Ἱπποδρόμιος: and probably one or more occurred before Γεύστης, between the first and the third vv. of the inscription, which begins to be legible at present only from v. 3.

The names consequently of eleven months, which must have entered the calendar of the time being, would thus be recoverable from these inscriptions; the order of which too (for any thing which appears to the contrary) under those names might have been as follows—

Βώμιος, Ἄρεος, Χρυτταῖος, Γεύστης, Λύκεος, Θριξάλλιος, Κρόνιος, Ἱπποδρόμιος, Πάναμος, Ἀπελλαῖος, Βουκάτιος.

And one only, on this principle, being still wanted to complete the calendar, even that desideratum may probably be supplied by the name of a month, discovered upon another inscription by Colonel Leake[7]. Στρατηγοῦντος τῶν Θεσσαλῶν Ἁγασίμου . . . μηνὸς Ἰτωνίου δευτέρᾳ ἐκκλησίᾳ, κ̀, τ. λ. the place of which in the national calendar, referrible to the above list, we shall perhaps see reason to conclude must have been between Πάναμος and Ἀπελλαῖος.

From these data therefore we may venture to restore the national calendar of Thessaly, supposed to have been originally reducible under the fourth type of the Hellenic octaëteris in general, as it must have stood, with its proper months under their proper names and their proper Julian dates, at the epoch of that correction.

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[5] Pag. 100.

[6] No. 26. cf. Hermann, Pag. 99. Lamia, and Curtius, p. 16, who himself there recognises Panamus as one of the names somewhere or other recovered from these inscriptions.

[7] Travels in Northern Greece, Plate xlii. cf. Hermann, Pag. 118.

### *Hellenic Octaëteris, Type iv. Epoch Jan. 2, B.C. 517.*

### Calendar of Thessaly.

| Month. | Length. | Names. | Julian Dates. |
|---|---|---|---|
| i. | 29 days | Βώμιος | January 2 B.C. *517 |
| ii. | 30 | Ἄρεος | — 31 |
| iii. | 29 | Χρυτταῖος | March 1 |
| iv. | 30 | Γεύστης | — 30 |
| v. | 29 | Λύκεος | April 29 |
| vi. | 30 | Θριξάλλιος | May 28 |
| vii. | 29 | Κρόνιος | June 27 |
| viii. | 30 | Ἱπποδρόμιος | July 26 |
| ix. | 29 | Πάναμος | August 25 |
| x. | 30 | Ἰτώνιος | September 23 |
| xi. | 29 | Ἀπελλαῖος | October 23 |
| xii. | 30 | Βουκάτιος | November 21 |
| i. | 29 | Βώμιος | December 21 B. C. 517 |

And though we cannot propose this arrangement as absolutely certain, it may be confirmed in particular instances by the etymons of these names, and by their Julian dates (assumed to have been those of the fourth type), in a remarkable manner.

i. Βώμιος. The name of this month must have been derived from Βωμὸς, the Greek for altar; and its literal grammatical meaning must have been that of the *altar month*, the month of altars. The Νουμηνία of the lunar month, in all the calendars of the Greeks, was sacred to all the gods[8], and that of the first month, as taking precedence of the rest, as ushering in the rest—as the Νέα ἡμέρα, or new year's day—as the *νουμηνία κατ' ἐξοχὴν*, in a particular calendar, might be so esteemed and so treated in a particular manner: and if it was usual, on every other numenia throughout the year, to offer a sacrifice to all the gods, and on one altar in common, it might be the rule in some instances, and in Thessaly among the rest, on the first numenia of the year, to offer a distinct sacrifice to each of the twelve Olympic gods on an altar of his own in particular. And hence the name of this first month, under such circumstances; the month of altars, the month of twelve different sacrifices, upon twelve different altars, to the twelve principal objects of worship, the Dii Majores of classical antiquity. The temple of the Roman Janus also, we are told[9], was furnished with twelve altars, one for each of the months of the year, of all of which he was the presiding or tutelary principle; and it is far from improbable, though we do not know it from testimony, that the year was ushered in among the Romans by a stated sacrifice to Janus, as the presiding genius of each of the months, on all these altars at once: on which supposition, the name of the altar-month would have been as applicable to the Roman Januarius, as to the Μὴν Βώμιος of the Thessalian calendar.

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[8] See vol. i. 264. note. i.

[9] See our Origg. Kal. Italicæ, i. 345. 371.

ii. Ἄρεος. This name was evidently derived from Ἄρης, and must have been the Thessalian form of the epithet Ἄρειος, Martius, of or belonging to Mars. The month so called must consequently have been the Mensis Martius, the military month. It is observable that the normal limits of this month, in the above scheme, having been Jan. 31 and March 1, it must have been the month of the early spring in the Thessalian calendar, and of the season which Thucydides meant by that of the ἦρ ἀρχόμενος. The earliest season, for the resumption of military operations after the winter, must always have fallen out in this month. The Thessalians were a martial nation, constantly engaged in wars with their neighbours, the Phocians or the Bœotians: and nothing could be more probable *a priori* than that they would give the name of the month of Mars to that month in their calendar, which for their climate was the first to recal them to the practice of arms, and to the resumption of their military or predatory habits.

iii. Χρυτταῖος. Both Curtius and others have conjectured that this name, and in this form, is only an accidental corruption of the probable true and original name of Χυτραῖος: and that being directly derivable from Χύτρα, the Greek for an *earthen pot*, the explanation of the name, as the month of the Χύτρα or Χύτραι, is probably to be found in the tradition relating to the Flood of Deucalion, which we had occasion to cite in our Origines Kalendariæ Italicæ [10], from Theopompus and others, in illustration of the Μιαραὶ ἡμέραι of the Attic calendar. And this explanation is greatly confirmed by the proper Julian date of this month, March 1; though we cannot stop at present to clear up that point; which must necessarily be reserved for the second part of this work.

iv. Γεύστης or Γευστός. Whichever of these may be considered the proper *casus rectus* of this name, (which occurs in our inscriptions only in the form of Γεύστου,) there cannot be much doubt it must have been derived in either case from γεύω, to make to taste, or γεύομαι, to taste, in Greek; and that its proper meaning, as so derived, must have been that of the *tasting* month. If so, the name itself will imply that it was so called from a ceremony in the Thessalian calendar, analogous to that of the Πιθοίγια in the Athenian, or of the Ἀγαθὸς δαίμων in the Bœotian [11], or of the Vinalia in the Roman [12]. The Πιθοίγια indeed in the Attic were attached to the 11th of Anthesterion, which would have answered more properly to Ἄρεος in the Thessalian, than to Γεύστης. But the Ἀγαθὸς δαίμων was attached to the 6th of Prostaterius in the Bœotian, the normal date of which was March 18, only 12 days earlier than the first of Γεύστης;

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[10] i. 425, 426 note. [11] See supra, 273 sqq. [12] Origg. Kal. Ital. i. 292 sqq.

and the Vinalia in the Roman were attached even to the 23d of April—the 25th of Γεύστης itself. The truth is, this ceremony of tasting the new wine, in order to discover how it had stood both the winter and the return of spring, in the reason of things might be attached to any date between the Flatus Favonii, the earliest term of the returning spring, and the heliacal rising of the Pleiads, the earliest term of the beginning of summer; and the first of Γεύστης, or any day in the first decad of Γεύστης within ten or at the utmost twenty days, of the Vernal Equinox, (which would always fall within the last ten days of Χυτραῖος,) in the Thessalian calendar, would be as proper for it as any.

v. Λύκεος. This also appears to have been the Thessalian form of the epithet Λύκειος, the proper etymon of which must have been Λύκος. It would be a mistake however, in a case like this, to derive the name of the month from Λύκος in the sense of *lupus*. We hope to shew, on a future opportunity, that Λύκειος, as derived from Λύκος, was one of the titles of the sun. We hope to shew also, by the testimony of a remarkable institution of Grecian antiquity, that the phenomenon, the fact of which we know at present only from the Mosaic account of the creation, viz. that the first three days of the Hexaëmeron had light, but not as derived from the sun, and what is more, the true Julian dates of those three days, April 25, 26, and 27, were long known and remembered traditionally among the ancient Greeks; and that the first day, in the course of the present system of things, which had light, and light, agreeably to the order and course of nature, ever after derived from the sun, was the fourth day of the Hexaëmeron, April 28. It is very observable that the normal date of this Thessalian month, Λύκεος, as the scheme shews, was only one day later than the traditionary date of this day, April 28: and that must do much to confirm our conclusion that it took its name from the sun, as the author and source of light to the existing system of things, according to the established order and course of nature.

vi. Θριξάλλιος. Θερίξαι or Θρίξαι being the Æolic form of *θερίσαι*, the first aorist of *θερίζω*—which is the Greek for to reap—and *ἀλέη* Ionice, or *ἀλέα* Attice, being the Greek for warmth or heat, (in particular, the warmth or heat of the sun,) it is a very probable conjecture that this name was compounded originally of these two elements, *θρίξαι* and *ἀλέα*, and that its original form was Θριξάλεος, which in course of time might easily be corrupted into Θριξάλλιος. Its normal limits having been May 28 and June 27, it is clear it must have been the month next before midsummer in the Thessalian calendar; and must have answered in that to Skirrhophorion in the Attic. June 26, the last day of this month, B. C. 517, was midsummer day itself. And as, for the climate of Thessaly, even wheat harvest would always fall out in this month *, nothing can be more probable than that the month was so called from the reaping of the harvest, and the heat of the sun, in this month—*παρὰ τὸ θερίξαι ἐν ἀλέᾳ*: for the work of reaping, whether the barley or wheat harvest, in all ages and in all climates, and especially among the Greeks and Romans, has had to be performed *sub dio* and in the sun[13].

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* See our Origines Kalendariæ Italicæ, iii. 469–473 of the state of the case in that respect for the same climate, in the year of Pharsalia, B. C. 48.

vii. Κρόνιος. If there was a month of this name in the Thessalian calendar (as Stephani appears to have discovered), it must have been ultimately derived from Κρόνος; but there is no reason why it should not have been primarily derived from Κρόνια, the name of the feast of Κρόνος among the ancient Greeks. In explanation of this etymon, we hope to shew on a future opportunity that the name of the Ὀλύμπια of classical antiquity, as originally instituted by Pelops, was this of the Κρόνια; and the proper date of the Cronian institution and of the Cronian month of Pelops was June 25. Now the normal date of this Cronian month in the Thessalian calendar, supposed to have come in here, between Θριξάλλιος and Ἱπποδρόμιος, was June 27 also—only two days later than the Cronian month of Pelops. We have already had occasion to observe, and we hope to see proofs hereafter, that the Cronia once instituted never ceased to be observed in the ancient Greek calendar; and in some instances at the same season of the year as at first—that is, midsummer. These are strong presumptive arguments, both of the site in the natural year, and of the Julian date, of this Cronian month of the Thessalian calendar.

viii. and ix. Ἱπποδρόμιος and Πάναμος. Both these names occurred, and as those of consecutive months too, in the Bœotian calendar[14]. And the Bœotian calendar (Type ii.) Cycle vii. 3, being compared with the Thessalian (Type iv.) Cycle i. 1, the Bœotian Hippodromius was falling on June 16, the Thessalian on July 26; the Bœotian Panamus or Panemus on July 15, the Thessalian on August 25: though this difference in that year, as being the year before the first intercalation in the Bœotian cycle, was accidentally greater than it ought really to have appeared; and the next year, B. C. 516, the Thessalian Hippodromius would fall July 15, the Bœotian July 5, the Thessalian Panamus August 14, the Bœotian August 4. Yet it need not be supposed that the Thessalians borrowed these two names, for the use of these two months in their own calendar, from the Bœotian names of the corresponding months in the Bœotian. Thessaly was famous for the number and quality of its breeds of horses; and nothing would be more probable *a priori* than that, among the national sports of the Thessalians, this of Ἱπποδρόμια, or horse-races, would be one. And the most usual time of the year for such races being the month before, or the month after, midsummer, it would be nothing surprising that they should have given the name of Ἱπποδρόμιος to the eighth month in their calendar, the month next after midsummer. And as to the month Panamus, if it derived its name, as it appears to have done, from the summing up as it were and conclusion of the Cereal year, by the gathering in of the last of the productions of the ground, in contradistinction to those of trees, it was even more applicable to the ninth month in the Thessalian calendar, than to the eighth in the Bœotian.

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[13] See supra, 300 note.

[14] See supra, 289. 311, 312.

x. *Ἰτώνιος*. The etymon of this name we apprehend to have been *Ἴτων*—the name of a city in Thessaly, the first allusion to which, in classical antiquity, occurs in Homer's account of the followers of Protesilaus:

> *Οἵ δ᾿ εἶχον Φυλάκην καὶ Πύρρασον ἀνθεμόεντα*
> *Δήμητρος τέμενος, Ἴτωνά τε μητέρα μήλων*[15]—

*Ἴτων*[16]· *πόλις Θεσσαλίας·*

> .. .. .. *Ἴτωνά τε μητέρα μήλων.*

*οἱ ἐγχώριοι ὀξυτόνως αὐτήν φασιν, Ἰτών. τινὲς δὲ Σιτῶνα αὐτήν φασι, διὰ τὸ σιτοφόρον. λέγεται δὲ ἡ Ἴτωνος, ἀπὸ Ἰτώνου ἥρωος· ἀφ᾿ οὗ καὶ Ἰτωνία, ἡ Ἀθηνᾶ, ἥτις καὶ Ἰτώνη. τὸ ἐθνικὸν Ἰτωναῖος, καὶ Ἰτωναία ἡ Ἀθηνᾶ*—*Τὴν δὲ Ἴτωνα προπαροξύνεσθαί φασιν οἱ παλαιοὶ, ὡς Μήκωνα. τινὲς δὲ ὀξύνουσι, λέγοντες ὅτι ὠνομάζετο καὶ Σιτὼν διὰ τὸ σιτοφόρον. λέγεται δὲ, φασὶ, καὶ Ἰτώνη τρισυλλάβως· ἔτι δὲ καὶ Ἴτωνος, ἀπὸ Ἰτώνου ἥρωος· καὶ Ἀθηνᾶ δὲ ἐξ αὐτῆς Ἰτωνία*[17]—

> *Ἦλθον Ἰτωνιάδος μιν Ἀθαναίας ἐπ᾿ ἄεθλα*
> *Ὀρμενίδαι καλέοντος*[18]—

*Ἴτων, πόλις Θεσσαλίας, ἔνθα τιμᾶται Ἀθηνᾶ*[19]—*Ἰτωνὶς καὶ Ἰτωνία*[20]· *ἡ Ἀθηνᾶ εἴρηται, παρὰ τοῖς Θεσσαλοῖς, ἀπό τινος πόλεως, Ἴτωνος. φησὶ δὲ ὁ γενεαλόγος Σιμωνίδης Ἰτώνου θυγατέρας γενέσθαι δύο, Ἀθηνᾶν καὶ Ἰοδάμαν, κ᾿, τ. λ.* It then quotes Apollonius Rhodius[21]: *Οἷον*

> *Πηλιάδες σκοπιῇσιν ἐθάμβεον εἰσορόωσαι*
> *ἔργον Ἀθηναίης Ἰτωνίδος κ᾿, τ. λ.*

on which the Scholiast: *Ἰτωνίδος· γράφεται καὶ Τριτωνίδος. Ἰτωνίας δὲ Ἀθηνᾶς ἐστιν ἱερὸν ἐν Κορωνείᾳ τῆς Βοιωτίας. ὁ μέντοι Ἀπολλώνιος οὐκ ἂν λέγοι τὴν Ἀθηνᾶν ἐπὶ κατασκευῇ τῆς Ἀργοῦς ἀπὸ τῆς ἐν Ἰτωνίᾳ* (corr. *Βοιωτίᾳ*) *κλήσεως, μᾶλλον δὲ ἀπὸ Θεσσαλικῆς Ἰτωνίας, περὶ ἧς Ἑκαταῖος ἐν τῇ πρώτῃ τῶν ἱστοριῶν λέγει· Ἀρμενίδας δὲ ἐν τοῖς Θηβαϊκοῖς Ἀμφικτύονος υἱὸν Ἰτωνὸν ἐν Θεσσαλίᾳ γεννηθῆναι, ἀφ᾿ οὗ Ἴτων πόλις καὶ Ἰτωνὶς Ἀθηνᾶ. μέμνηται καὶ Ἀλέξανδρος ἐν πρώτῳ Καρικῶν ὑπομνημάτων.* Cf. also the description of the dress of Jason, before his visit to Hypsipyle at Lemnus;

> *Αὐτὰρ ὅγ᾿ ἀμφ᾿ ὤμοισι θεᾶς Ἰτωνίδος ἔργον*
> *δίπλακα πορφυρέην περονήσατο· τήν οἱ ὄπασσε*
> *Παλλὰς ὅτε πρῶτον δρυόχους*[22] *κ᾿, τ. λ.*

*Ἐν Θεσσαλίᾳ θεὰ Ἰτωνὶς τιμᾶται, καὶ ἐν Κορωνείᾳ πόλει τῆς Βοιωτίας, ἀπὸ Ἰτώνου τοῦ ἱερέως* (corr. *ἥρωος*)[23].

Strabo describes *Ἴτων* as situated in the same quarter of Thessaly, in general, as Thessalian Thebes, and on the river Amphrysus: *Τούτου δὲ* (the *Ἄμφρυσος*) *ὑπέρκειται ὁ Ἴτωνος* (al. *Ἴτων*). *ὅπου τὸ τῆς Ἰτωνίας ἱερὸν, ἀφ᾿ οὗ καὶ τὸ ἐν τῇ Βοιωτίᾳ, καὶ ὁ Κουάριος ποταμὸς κ᾿, τ. λ.*[24] Pausanias, in his account of the shields dedicated there by Pyrrhus, (after his victory over Antigonus and his Gallic mercenaries *,) places the temple, and therefore Iton, or Itonus, between Pheræ and Larissa [25].

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[15] Il. B. 695.

[16] Steph. Byz.

[17] Eustathius, ad Iliad. B. 696. 324 23.

[18] Callimachus, in Demetram, 75.

[19] Schol. in loc.

[20] Etym. M.

[21] Argonautica, i. 550. cf. Tzetz. ad Lycoph. 355.

[22] Ibid. 721.

[23] Schol. in loc.

[24] ix. 5. 304 a.

With respect then to the etymon of the name of this month; the name of the Μὴν Ἰτώνιος among the Thessalians must have been derived from the name of their goddess Ἰτωνία; and the name of the Thessalian Ἰτωνία must have been derived from that of the city of Ἴτων. The Ἰτωνία (i. e. θεὰ) was in an eminent sense the goddess of Ἴτων, and the Ἰτώνιος (sc. μὴν) was in a similar sense the month of the Ἰτωνία θεά. The question is therefore, after all, what was the meaning of this name of Ἴτων, or, as the Thessalians themselves pronounced it, Ἰτών?

The first answer to this question is probably supplied by Homer; who while joining these three cities, Iton, and Phylake, and Pyrrhasus, in a common enumeration, as neighbours in point of situation, implies a common relation of all of them to the Hellenic Demeter in general, by applying to one of them, Πύρρασος, the descriptive epithet of Δήμητρος τέμενος in particular. The next may be derived from the fact which we learnt from Stephanus and Eustathius [26], that the proper name even of this city of Ἰτὼν, according to some of the ancients, was Σιτὼν, rather than Ἰτών. Ἰτὼν and Σιτὼν indeed were nearly related in sound; and a naturally fertile neighbourhood, like that of Ἰτὼν, it might be supposed, was very likely *a priori* to suggest the name of Σιτὼν, through that of Ἰτὼν itself. But let it be assumed that the city of Ἰτὼν and its neighbourhood were closely connected with the Hellenic Demeter from the first, and that the Hellenic Demeter herself was simply the impersonation of the vegetable Principle in the two principal grains of barley and wheat; and it will appear much more probable that this correction, or this explanation, of the name of Ἰτὼν by that of Σιτὼν, would be suggested by the relation of the city to the goddess to whom it was sacred, the Principle of fertility itself, than by that to the neighbourhood in which it was situated, and the fertility of the surrounding country.

The next is supplied by the fact that, according to the above representations, the founder or eponym of this city of Ἰτὼν, and the author of the worship of the Ἀθηνᾶ recognised there in particular as divine, was Itonus the son of Amphictyon. Our oldest authority for this statement is Hecatæus; and his statement is repeated by Pausanias [27], who calls this Itonus both Ἴτωνος and Ἰτώνιος, but in each case the son of Amphictyon. Amphictyon, as an individual, and as the son of Deucalion, in our belief, never had any real existence. As the eponym of the Amphictyonic council, and as the impersonation of the Amphictyonic institution, he may be considered to have had a real historical existence through that of the institution: and the ultimate explanation of this tradition, which made Itonus, the son of Amphictyon, the founder of *Ἰτὼν* and of the worship of the *Ἀθηνᾶ* of *Ἰτὼν*, as we hope to see hereafter, will turn out to be the fact that, between the Itonian Athena and the Hellenic Demeter, there was no difference except in name; and that the worship of the Hellenic Demeter, as a national badge of distinction, was first introduced and established, at a very early period, by the Amphictyonic council.

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* Τοὺς θυρεοὺς ὁ Μολοσσὸς, Ἰτωνίδι δῶρον Ἀθανᾷ,
Πύρρος ἀπὸ θρασέων ἐκρέμασε Γαλατᾶν κ', τ. λ.

[25] i. xiii. 2. cf. Smith's Geography, in nomine.

[26] Supra, p. 482.

[27] ix. i. 1: xxxiv. 1. cf. Diodorus Sic. iv. 67, who makes an Itonus (probably the same) the son of Bœotus, and grandson of Posidon.

And with respect to what we have just asserted, that between the Itonian Athena and the Hellenic Demeter, there was no difference from the first except in name—this will appear, as soon as it is known that each was the same with the Egyptian Isis; and the conception of each was ultimately derived from that of the Egyptian Isis. Demeter was merely a name for this idea, which the authors of the Eleusinian, or of the Thesmophorian, institution invented for themselves; Athena was one which the Greeks borrowed from one of the Egyptian names of Isis herself.

And here it is very important to observe that, though the Greeks of later times certainly understood by the Itonian Power, or Principle, their own goddess Athena to have been personally meant, and after what has been thus premised of the identity of both with the Egyptian Isis, it cannot be said that this understanding was mistaken; yet, for any thing which has come down to the contrary, this power or principle itself, so characteristic of the ancient Iton, was never any thing but *ἡ Ἰτωνὶς*, or *ἡ Ἰτωνία*, the goddess of *Ἰτών*; and neither more nor less than the goddess of *Ἰτὼν*, whatsoever else might have been implied by that designation.

Now the name of the Egyptian Isis in its own language appears to have been simply HS, or something to the same effect[28], of which the Greeks made *Ἰσις*, or *Ἵσις*. Between *Ἵσις* and *Ἵτις* the difference would be slight; and assuming the form of *Ἵτις* as a possible one of the name of the goddess worshipped at Iton, we might very reasonably claim to be allowed to assume the name of *Ἵτων*, or *Ἰτὼν*, as a possible one for that of the city sacred to *Ἵτις*. We have proof to produce hereafter, that *Ἵσων*, or *Ἰσώνα*, was an actual modification of the Egyptian name of Isis, handed down to the time of Pherekydes among the Greeks, from as far back as the time of Cadmus; and that would be from as far back as the first introduction in Egypt of the name and idea of Isis herself.

The drift of these observations is to render it highly probable that, whosoever was the founder of the city of Iton in Thessaly, and of the worship of the Itonian goddess in particular, the goddess herself was neither more nor less than the Egyptian Isis, and the city of this goddess neither more nor less than the city of Isis, and possibly the very first city founded and dedicated to her in that relation, and under that name, any where in Greece, and certainly in Thessaly; though the worship of Isis, under the name of Athena, and under that of Demeter, in other quarters of Greece, might be older (and even much older) than her worship in

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[28] Cf. our Fasti Catholici, iii. 180–183.

Thessaly under this name of Ἴτις. And as the first introduction of the name and worship of Isis herself in Egypt bore date only from B. C. 1350[29], so, if that of the name and worship of the Thessalian Ἴτις may be supposed not later in that country than the first Cyclico-Julian period of 120 years from this date of B. C. 1350, (i. e. B. C. 1230,) it would be a curious coincidence that B. C. 1230, as we hope to see hereafter, is as nearly as possible the traditionary date of the Argonautic Expedition; and the construction of the Argo, for the use of that expedition, according to tradition also, as the work of the Itonian goddess, could not have been earlier, nor yet much later, than the first introduction into Iton of the Itonian goddess herself.

It follows from these premises that, if the Itonia had a stated ceremony or observance, and at a stated season of the year, from the first, it must have been that of the Egyptian Isia, or something analogous to it: and the first and original date of the Egyptian Isia, as we have fully proved in the first Part of this work, in the first year of its proper cycle of leap-year, having been the four days from October 6 to 9 inclusive, and in every other, the four from October 5 to 8 inclusive; we are at liberty to assume the same things of the original date of the Thessalian Itonia, if purposely taken from these primary terms of the Egyptian Isia, October 6–9, B. C. 1230, October 5–8, B. C. 1229. And these dates being supposed to have been known and observed among the Thessalians ever after, as much as many others of like kind, (as we shall see, we hope, in due time,) among the rest of the Greeks; it is manifest that at the date of their lunar correction, B. C. 517, Cycle i. 1, at the beginning of the second year of the Sothiacal cycle of leap-year, these stated Itonian terms would be falling October 5–8—and October 5–8, on the 13th–16th of the tenth month in our proposed scheme of this first Thessalian correction: and this tenth month by virtue of that coincidence would be designated as the Μὴν Ἰτώνιος; and the 13th–16th (the 3rd to the 6th of the second decad) of this month, as the stated Itonian dates in the lunar correction in question.

This conclusion respecting the name and place of the Μὴν Ἰτώνιος in the Thessalian lunar calendar, thus deducible *a priori* from the previous history of the Itonia of Thessaly, is very materially confirmed by the history of another Ἰτωνία, in a different quarter, derived from this Thessalian one; and from that of another Μὴν Ἰτώνιος, in a different calendar, yet occupying the same place in that as this Itonian month in the Thessalian.

The expulsion of the Bœotians at a remote period, for a certain length of time, from Thebes, and their sojourn in Thessaly while this expulsion was continuing, and their return to their own country again at last, are well known facts in their ancient history; on which we shall have somewhat to say, in connection with the history of the Bœotian Parthenia, and the Parthenian Ennead, in the second Part of this work. At present it may suffice to observe that this sojourn of theirs in Thessaly, while their expatriation lasted, was passed at Ἄρνη in Thessaly, and their return home again at last took place from Ἄρνη; and Coroneia in Bœotia was the first place occupied by them in their own country upon their return: and Ἄρνη being close to Ἰτὼν in Thessaly, if they had known nothing of the Itonia of Thessaly before their sojourning there, they must have become acquainted with her there. And as they returned at last from Ἄρνη to Bœotia, and in Bœotia first of all to Coroneia, the coincidence most to be observed is this, that at Coroneia they founded a temple of the Ἰτωνία, and at Coroneia ever after, and in and about this temple of the Ἰτωνία, they celebrated their national festival of the Παμβοιώτια.

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[29] See our Fasti Catholici, iii. 73–155.

[30] Ibid. iii. 132–138.

Ἡ μὲν οὖν Κορώνεια, says Strabo[31], ἐγγὺς τοῦ Ἑλικῶτός ἐστιν, ἐφ' ὕψους ἱδρυμένη. κατελάβοντο δ' αὐτὴν ἐπανιόντες ἐκ τῆς Θετταλικῆς Ἄρνης οἱ Βοιωτοὶ μετὰ τὰ Τρωϊκὰ, ὅτε περ καὶ τὸν Ὀρχομενὸν ἔσχον. κρατήσαντες δὲ τῆς Κορωνείας, ἐν τῷ πρὸ αὐτῆς πεδίῳ τὸ τῆς Ἰτωνίας Ἀθηνᾶς ἱερὸν ἱδρύσαντο, ὁμώνυμον τῷ Θετταλικῷ· καὶ τὸν παραρρέοντα ποταμὸν Κουάριον προσηγόρευσαν ὁμοφώνως τῷ ἐκεῖ. That Ἴτων was situated on this river Κουάριος, more properly even than on the river Ἄμφρυσος[32], appears from Strabo also[33]: Τούτου δ' ὑπέρκειται ὁ Ἴτων, κ', τ. λ. καὶ ὁ Κουάριος ποταμός. εἴρηται δὲ περὶ τούτου ἐν τοῖς περὶ τῆς Ἄρνης Βοιωτιακῆς[34]. He continues, Ἀλκαῖος δὲ καλεῖ Κωράλιον, λέγων,

Ἄσσ' Ἀθάνα ἄπολε...
ἀπὸ Κορωνείας ἐπὶ δεῦ...
πάροιθεν ἀμφὶ Κωραλίῳ ποταμῷ παρ' ὄχθαις *.

ἐνταῦθα δὲ καὶ τὰ Παμβοιώτια συνετέλουν. συγκαθίδρυται δὲ τῇ Ἀθηνᾷ ὁ Ἅιδης, κατά τινα, ὥς φασι, μυστικὴν αἰτίαν.—Cf. Pausanias[35]: Πρὶν δὲ ἐς Κορώνειαν ἐξ Ἀλαλκομενῶν ἀφικέσθαι, τῆς Ἰτωνίας Ἀθηνᾶς ἐστι τὸ ἱερόν· καλεῖται δὲ ἀπὸ Ἰτωνίου τοῦ Ἀμφικτύονος· καὶ ἐς τὸν κοινὸν συνίασιν οἱ Βοιωτοὶ ἐνταῦθα σύλλογον.

The Itonia of Bœotia, worshipped nowhere in that country, so far as is known of at present, except at Coronea, being thus derivable from the Itonia of Thessaly; it is very important to the right understanding of the name of this latter to attend to what Strabo specified last in his account of her Bœotian counterpart; viz. that in her proper temple at Coronea, Hades or Pluto was associated with her, κατά τινα μυστικὴν αἰτίαν: for that tends directly to identify each of these conceptions with the Egyptian Isis and the Hellenic Demeter. With each of these a fable *communis generis* was associated from the first. In one, Isis and Osiris and Typhon, in the other, Demeter and the Korê and Pluto, *mutatis mutandis*, acted the same parts, and served the same purpose, respectively.

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* Cf. Callimachus (Lavacrum Palladis, 63.) who calls it Κουράλιος.

ἢ 'πὶ Κορωνείας, ἵνα οἱ τεθυωμένον ἄλσος
καὶ βωμοὶ ποταμῷ κεῖντ' ἐπὶ Κουραλίῳ.

[31] ix. 2. 265 a.
[32] ix. 5. 304 a.
[33] See p. 482 supra.
[34] Cf. ix. 2. 265 a.
[35] ix. xxxiv. 1.

Nothing therefore could be more probable *a priori* than that the Bœotian Itonia would have both a name and a place in the Bœotian calendar, as much as the Thessalian one in the Thessalian; and that her proper month in the one would be analogous to that in the other. And it is remarkable that as the true place of the latter in its own calendar appears to have been that of the tenth month, in the first year of the cycle, between these fixed Julian terms of Sept. 23 and October 23, so there was one month, and only one, open to the Bœotian-Itonia in her proper calendar too, and that month the tenth, and the Julian limits of that month in the first year of its proper cycle, Oct. 5—Nov. 4; in which year (the fourth of the Sothiacal cycle of leap-year) the stated Isiac, or what is the same thing, the stated Itonian dates, October 6–9, would fall on the 2–5 of this tenth month. This coincidence, B. C. 567, would be competent to designate the tenth month of the Bœotian lunar calendar, the proper Itonian month; and by parity of reason that of the Παμβοιώτια * also: and very probably to cause the name of the Μὴν Ἰτώνιος to be given to it.

It may be observed too that, as the Bœotians during their sojourn in Thessaly were settled at Arne, so after their return to their own country they are said to have planted a colony at Arne in Thessaly again, though not under the name of Arne, but under that of Κιέριον: *Λεβαδέων δὲ ἔχονται Χαιρωνεῖς*[36]· *ἐκαλεῖτο δὲ ἡ πόλις καὶ τούτοις Ἄρνη τὸ ἀρχαῖον .... ἀπὸ δὲ ταύτης κληθῆναι καὶ ἑτέραν ἐν Θεσσαλίᾳ πόλιν—Ἄρνη πόλις Βοιωτίας*[37] *.... δευτέρα πόλις Θεσσαλίας, ἄποικος τῆς Βοιωτίας .... ἣ Κιέριον καλεῖται*[38]. Now, among the Thessalian inscriptions which have come to light, one there is which records the name of a month in the calendar of Κιέριον[39]: *Προθεῖναι τὴν κρίσιν ἐν τῷ συνεδρίῳ τῷ ἐν τῷ Θύῳ μηνί.* The name of this month was consequently Θύος: and though no such name occurs in the calendar of Lamia, nor consequently (as we have hitherto assumed) in the national calendar of Thessaly, that will be no difficulty; if this name belonged to the calendar of Kierium, and Kierium was properly no part of the commune Thessalum.

Now this name is evidently derivable from *θύος*; and *θύος*, as we have seen, or shall see, occurs more than once as the name of a month in certain calendars of antiquity, in the compound form of Διόσθυος. In this Kierian calendar however we should be of opinion it had never any form but this of Θύος, or possibly of Θυΐος † or Θῦος. And the name itself being clearly derived from *θύος*, which occurs in the singular in Æschylus[40], and in the plural, *θύη*, more than once in Homer[41], in the sense of sacrifice, it might be supposed at first sight such a name in its proper calendar denoted the sacrificial month, in some eminent sense; and therefore in the calendar of Kierium might be the coordinate of the month Βώμιος in the Thessalian. But it is also to be observed that the sense of this word *θύος*—even as intended of sacrifice—to judge from the idiom of Homer, must have been properly that of sacrifice of a peculiar kind; sacrifice made with incense, or cakes, or the *ἀπαρχαὶ* of the fruits of the ground—any thing, in short, which was wont to be offered distinct from the flesh of animals, accompanied with the shedding of blood; the proper word for which was *θυσίαι*. Now an offering of this simple and primitive description seems to have been prescribed for the Eleusinian or the Thesmophorian Demeter, and in the Eleusinian ceremony itself the day, on which it was offered, was called Θύα after it. The true etymon of the month Θύος in the calendar of Kierium therefore was probably *θύα* in this sense; and if so, this month in that calendar would be designated by its name itself as the coordinate of the Itonian month, rather than of the month Bomius, in the Thessalian. And thus much may suffice for the illustration of the Μὴν Ἰτώνιος.

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* The stated relation of the Παμβοιώτια to the natural or the Julian year is not known from testimony, so far as we are aware, at present. There is however an allusion to them in the Amatoriæ Narrationes of Plutarch (iv.), from which it is a necessary inference that they were later than corn-harvest at least, and therefore might have fallen out in September or October every year.

† Θυΐα was the name of a peculiar ceremony in the Elean calendar, in honour of Dionysos.

[36] Pausanias, ix. xl. 3.

[37] Stephanus Byz.

[38] Cf. both of Ἄρνη and Κιέριον, Smith's Geography.

[39] Hermann, pag. 89, 90. (Transactions of the Royal Society of Literature, 1827. Tom. i. 155.)

xi. Ἀπελλαῖος. xii. Βουκάτιος. Of these two, Ἀπελλαῖος has occurred in various calendars which have already come under our notice; but it will also occur in the Macedonian, which has not yet passed in review before us: and as it appears to have been as proper to that as to any, we reserve what we have to say in explanation of it for the consideration of the Macedonian calendar. All we need to observe at present is that, as its site in the natural or the Julian year, according to the scheme proposed above, is from Oct. 23—Nov. 21; so, when the meaning of its name comes to be explained, no site will appear to have been more suitable for it than the middle of the autumnal quarter in the natural year, October 23—Nov. 21 in the Julian.

The name of Βουκάτιος has occurred in the Bœotian calendar; and we shall meet with it again in the Delphian. In the Bœotian however it was the first month; in the Thessalian, according to our arrangement, it must have been the last. There is no difficulty in this distinction. On the contrary, when we consider the mutual jealousies and independence of the communities of the ancient Greeks, and especially of those who were nearest to each other, if the Thessalians, as well as the Bœotians, had a Bucatius in their calendar, it would much more probably be the name with them of a different month from the Bœotian, than the same with it. The name of Βουκάτιος however seems to have been determined to the last in *their* calendar, for reasons peculiar to themselves; of which we cannot here give the necessary account, because of their connection with the Second Part of our Work. The etymon of the Thessalian Βουκάτιος in any case is no doubt the same as that of the Bœotian, from *βοῦς* and *καίνω*, cædo;

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[40] Agamemnon, 1409.

[41] Iliad. Z. 270: I. 495: Od. O. 261, &c.

and the meaning of the name in either case is no doubt that of the Μὴν *βουφόνιος*. The reason too, which appeared to have been assigned by some of the ancients for the imposition of this name on the first month in the Bœotian calendar, (the fact of the sacrifice of a much greater number of oxen in that month than in any other,) though not true *de facto* of that, seems to have been literally true of the last month in the Thessalian. This month, and the 17th of the month, as we hope to see hereafter, was the stated date of the greatest festival in the Thessalian year ; the Thessalian Peloria, the natale or birthday of Thessaly itself: and this being kept, through the length and breadth of the land, by all orders and ranks of persons, rich and poor, high and low, freemen or slaves alike, for five days at least, with an indiscriminating profusion and hospitality, more animals were probably slaughtered, both for sacrifice and for the sake of feasting upon them, in this month, than in all the year besides. And that was probably the reason why the month itself was called Βουκάτιος, the Μὴν *βουφόνιος, κατ' ἐξοχήν*.

The review of the months in the calendar of Lamia, considered as the same with the national calendar of Thessaly, which we have thus concluded, is decisive that there could have been no Carnean month in that calendar. The Carnean month, as we have observed, was distinctive of the Doric calendars of antiquity; and though the Dorians, at some time or other of their early history, appear to have lived in Thessaly—the Thessalians as such were not Dorians. It is not surprising therefore that Euripides in his Alkestis, while alluding so plainly to the Carnean solemnity and the Carnean month, in connection with the proper subject of that play, alludes to it equally plainly as a solemnity and a month which would come round in due time in the Spartan calendar, but not in the Thessalian—or only in the Thessalian as standing in such and such a relation to the Spartan.

## CHAPTER III.

## *On the fifth Type of the Hellenic Octaëteris.*

### SECTION I.—*Scheme of the fifth Type of the Hellenic Octaëteris.*

*Epoch Gamelion* 1, *Æra Cyclica* 3515, *December* 26, *B. C.* 493*.

| Cycle. | Midnight. | | B. C. | |
|---|---|---|---|---|
| i. | December | 26 | 493 | 492 |
| ii. | — | 15 | 492 | 491 |
| *iii. | — | 4 | 491 | 490 |
| iv. | — | 23 | 490 | *489 |
| *v. | — | 11 | 489 | 488 |
| vi. | — | 30 | 488 | 487 |
| vii. | — | 19 | 487 | 486 |
| *viii. | — | 8 | 486 | *485 |

### SECTION II.—*On the Lunar Correction of the Primitive Solar year in Phocis.*

We are in possession of no data, by means of which a probable conjecture might be formed on this subject, except the inscription which we produced in illustration of the Bœotian calendar[z]. It appeared from that inscription that, at the time to which it belonged, the first month in the Phocian calendar, and Alalcomenius in the Bœotian, were agreeing more or less together.

Now Alalcomenius having been the twelfth month in the Bœotian calendar, the first inference from this fact is that the Phocian calendar of this time could not have been one which belonged to the same type as the Bœotian; otherwise the first month of the former must have been agreeing with the first of the latter. The next is, that if the Phocian calendar was not derived from the same type as the Bœotian, *a fortiori* it could not have been from the same as the Attic; unless it could be considered probable that the lunar correction would be adopted in Phocis the same year in which it was in Attica, yet 25 years before it was so in Bœotia, and 50 before it was so any where else.

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* See vol. iii. Appendix, Table v.

[z] Supra, 294. Corp. Ins. 1569. tom. i. 740-746.

With regard however to its possible derivation from some one of the types which come between the epoch of the Second, and that of the Sixth—the Third, the Fourth, and the Fifth—in order to the means of arriving at a judgment on this question, assuming only that whatsoever the type to which this Phocian correction is ultimately reducible, it must have been one in which the first month, according to this type, and the twelfth, according to the Bœotian, were capable of coinciding more or less completely, we will begin with comparing the first month for one entire cycle in each of those types, with the twelfth for one entire cycle in the Bœotian.

i. Comparison of the twelfth month of the calendar, Type ii. with the first month of the calendar, Type iii.

| Type ii. | | | Type iii. | |
|---|---|---|---|---|
| Cycle. | xiith m. | xiiith m. | Cycle. | ist m. |
| i. | Dec. 3 | | i. | Jan. 7 |
| ii. | Nov. 22 | | ii. | Dec. 27 |
| *iii. | — 10 | Dec. 10 | iii. | — 15 = 6th of xiii. m. Type ii. |
| iv. | — 29 | | iv. | Jan. 3 |
| *v. | — 18 | Dec. 18 | *v. | Dec. 23 = 6th of xiii. m. Type ii. |
| vi. | Dec. 7 | | vi. | Jan. 11 |
| vii. | Nov. 25 | | vii. | Dec. 30 |
| *viii. | — 14 | Dec. 14 | *viii. | — 19 = 6th of xiii. m. Type ii. |

This comparison shews that in these two types in particular the coincidence in question was not possible; only that in the intercalary years in both, the first month in Type iii. would coincide with the xiiith in Type ii.; i. e. the first of the former would bear date on the sixth of the latter. And though it is true that this xiiith month in Type ii. was called ’Αλαλκομένιος, its proper style in that Type was ’Αλαλκομένιος β′; and that must not be confounded with ’Αλαλκομένιος α′, or ’Αλαλκομένιος absolutely, which could not be understood of any month in the Bœotian calendar but the twelfth. The coincidence attested by the inscription is that of the first month in the Phocian calendar, of the time being, with the Ἀλαλκομένιος absolutely (that is, the twelfth month) of the Bœotian, of the same time also.

ii. Comparison of the twelfth month of the calendar, Type ii. with the first month of the calendar, Type iv.

| Type ii. | | | Type iv. | | |
|---|---|---|---|---|---|
| Cycle. | xiith m. | xiiith m. | Cycle. | ist m. | |
| ii. | Nov. 22 | | i. | Jan. 2 | |
| *iii. | — 10 | Dec. 10 | ii. | Dec. 21 | = 12th of xiiith of Type ii. |
| iv. | — 29 | | *iii. | — 10 | = 12th of xii. — |
| *v. | — 18 | Dec. 18 | iv. | — 29 | = 12th of xiii. — |
| vi. | Dec. 7 | | *v. | — 18 | = 12th of xii. — |
| vii. | Nov. 25 | | vi. | Jan. 5 | |
| *viii. | — 14 | Dec. 14 | vii. | Dec. 25 | = 12th of xiii. — |
| i. | Dec. 3 | | *viii. | — 14 | = 12th of xii. — |

iii. Comparison of the twelfth month of the calendar, Type ii. with the first month of the calendar, Type v.

| Type ii. | | | Type v. | | |
|---|---|---|---|---|---|
| Cycle. | xiith m. | xiiith m. | Cycle. | ist m. | |
| *iii. | Nov. 10 | Dec. 10 | i. | Dec. 26 | = 17th of xiiith Type ii. |
| iv. | — 29 | | ii. | — 15 | = 17th of xii. — |
| v. | — 18 | Dec. 18 | iii. | — 4 | = 17th of xii. — |
| vi. | Dec. 7 | | iv. | — 23 | = 17th of xii. — |
| vii. | Nov. 25 | | *v. | — 11 | = 17th of xii. — |
| *viii. | — 14 | Dec. 14 | vi. | — 30 | = 17th of xiii. — |
| i. | Dec. 3 | | vii. | — 19 | = 17th of xii. — |
| ii. | Nov. 22 | | *viii. | — 8 | = 17th of xii. — |

In the first of these last two schemes there are only three years, the ivth, the vith, and the ist, in the Bœotian Type, the iiird, the vth, and the viiith in the Fourth, in which the coincidence was possible; in the second, there were six years in the one and six in the other, in any of which it was possible. While therefore we have no doubt that the actual type of the Phocian calendar at this time was one of these two, the Fourth or the Fifth of the Hellenic octaëteris in general, we consider it more probable it was *de facto* the latter than the former: and having to reduce it under one or the other of the two, we think we are less likely to be mistaken, if we class it with the calendars of the Fifth Type, than if we do so with those of the Fourth.

### SECTION III.—*On the rule of the names of the months in the Phocian Calendar.*

But though so little is known at present of this Phocian calendar, that little is important and interesting; as tending to confirm the assertion which we have often had occasion to make, that the months of the Primitive Solar calendar had originally no names but those of order and number.

It appears to have been a distinctive peculiarity of the Phocian correction of the Primitive Solar year, in contradistinction to those of the rest of the Greeks, that it retained this old rule for the names of the months even in the lunar calendar. One proof of this fact is supplied by the testimony of the inscription, which we have just been considering—in which the xiith month in the Bœotian calendar, under the name of Ἀλαλκομένιος, was compared with the corresponding one in the Phocian, under no name but that of the *First* *. Both calendars were no doubt lunar alike at this time; and we must necessarily infer from this distinction that the months in the Bœotian at this time had proper names, those in the Phocian had not.

Another is supplied by an inscription which appears to have belonged to Δαυλὶς, a part of the ancient Phocis[a]: in which mention is made of the seventh month, under no other name but that of the *seventh*: Ἄρχοντος] . . . τοῦ Πάτρωνος, βουλαρχέοντος Καλλικλέος μηνὸς (ἑβ)δόμου; . . . ἐννόμῳ ἐ(κκλη)σ(ί)ᾳ. And though, with the exception of one more, which, for its importance to the consideration of the present calendar, requires to be noticed by itself, these are all which occur in the Corpus Inscriptionum, calculated to illustrate the nomenclature of the Phocian calendar, others have come to light, which have not yet found their way into this collection, and yet illustrate the same nomenclature in the case of the third[b], the fourth[c], the fifth[d], and the ninth[e], respectively, as well as the first, the seventh, and the twelfth. The fact therefore being established by actual testimony in seven instances out of twelve; there can be no doubt that the names of the five remaining months must have been cast in the same mould, and that the months in the Phocian calendar, from the first to the last, had no names but those of number and order *.

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* We shall see too, we hope, hereafter the first month in the Phocian calendar, under the name of the first, compared with the Delphian Ἡραῖος. See Curtius' Anecdota Delphica, No. 27. Pag. 68.

[a] Corpus Inscript. 1725. i. 848.

* The inscription, to which we have referred, as so important on this question, is No. 1732 of the Corp. Ins. Tom. i. 849–852. It is in an excellent state of preservation; having suffered little from the effects of time, though dated so long ago as October 24 Roman, A. D. 118.

From a careful consideration of the terms of this inscription, we collect that the circumstances out of which it arose, in all probability, must have been the following. A certain lady of the time, whose name was Clea, and who seems to have been either a native or an inhabitant of Chæronea, the owner of a considerable landed property, having died; according to her own will, or for some other reason not explained, a certain portion of this property, not less than the sum of three several quantities (435 + 430 + 260 Phocian acres, *πλέθρα* or jugera, 1125 in all) either was to be, or might be, sold by her heirs; and the remainder, whatsoever it might be, was to go to the commune Dauliense, and become the public property of the *Δαυλιέων πόλις*. These 1125 acres had been sold accordingly; and bought by one Memmius Antiochus: whose name is set forth in the inscription, as the owner, by purchase, of so much of the whole, and the *Δαυλιέων πόλις* as the owner of the rest.

But as these lands of Clea's were not all of the same description, or all fit for the same purposes, some being olive-plantations (described as *ἀγρὸς δρύππιος*) others cleared forest lands, described as *ἀγρὸς εὐξυλείας*, and others plantations of plane-trees, and underwood or brushwood (*χωρία πλατάνου καὶ μοσχοτομεῶν*), though there was no question about the right of the purchaser, Memmius Antiochus, to so much of each of those as should make up the 1125 acres which he had bought—there was room *a priori* for some misunderstanding between him, as the purchaser of this moiety of the estate, and the commune Dauliense, as the owner of the other, about the amount of each which should be awarded to them respectively; i. e. how much of the *ἀγρὸς δρύππιος*, (probably the most valuable of it,) how much of the *ἀγρὸς εὐξυλείας*, (the next to it in value,) and how much of the *χωρία πλατάνου* and *μοσχοτομεῶν*, (the least valuable, because the most in a state of nature of the whole.) And such a misunderstanding, it seems, had arisen; and given occasion to a suit before the Roman proconsuls of the time, which could not have lasted less than three years, (and possibly even more,) before it was decided by the decrees recorded in this inscription. Of these there are two, one the decree of the umpire first appointed, who is called in the inscription, T. Flavius Eubulus, and whose decision is recorded on one of the faces of the stone, column a; the other, that of the umpire appointed next, to follow up and execute *his* decree, called on the marble, Currius (or Curius) Autobulus, whose decision is recorded on the other face of the stone (column b.)

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[b] At Elatea in Phocis: cf. Curtius, Anecdota Delphica, 39 c. pag. 74. Also at Tithorrha, Tithorea, or Tithora in Phocis: Ibid. p. 20.

[c] At Steiris in Phocis; Curtius, Anecdota, p. 22.

[d] At Tithorrha or Tithora: Hermann on the Greek Calendar, p. 106.

[e] Ibid. 106.

The preamble of the first of these decrees is couched in the following terms: Τ. Φλαουΐος Εὔβουλος, *ὁ δοθεὶς κριτὴς καὶ ὁριστὴς ὑπὸ* Κασίου Μαξίμου *ἀνθυπάτου, καὶ τηρηθεὶς ὑπὸ* Οὐαλερίου Σεουήρου *ἀνθυπάτου, μεταξὺ κ̀, τ. λ. ἀκούσ(ας) ἑκατέρου μέρους ἐφ᾽ ὅσον ἐβούλοντο καὶ ἐπὶ τὴν αὐτοψίαν ἐλθὼν, κελεύσαντός με ἀποφήνα(σ)θαι* Κλωδίου Γρανιανοῦ *τοῦ κρατίστου ἀνθυπάτου, κρείνω καθὼς ὑπογέγραπται*—the particulars of the award following: 435 Φωκικὰ *πλέθρα* of the *ἀγρὸς δρύππιος*, 430 of the *ἀγρὸς εὐξυλείας*, and 260 of the *χωρία πλατάνου καὶ μοσχοτομεῶν*, being assigned thereby to the purchaser Memmius Antiochus; the rest, whatsoever it was, over and above, in each instance, to the commune Dauliense. It thus appears, as we have observed, that the suit, having been instituted at least two years before, under one proconsul of the time being, and continued under the next, was decided by the umpire's award under the third.

This decision was made at Chæronea, and as so made, and at this time, the two parties in the suit who represented the people of Daulis, and who are called the *ἔγδικοι* or *ἔνδικοι τῆς Δαυλιέων πόλεως*, Zopyrus, son of Aristio, and Parmeno, son of Zopyrus, carried it back with them to their own city: and its reception there, and its date, are attested by the inscription itself, in the first paragraph of column a.

*᾿Αγαθῇ τύχῃ.* Αὐτοκράτορι Τραϊανῷ ᾿Αδριανῷ Καίσαρι Σεβαστῷ *τὸ β′*, Γναίῳ Πεδανίῳ Φούσκῳ Σαλεινάτορι *ὑπάτοις, πρὸ θ′ κ(αλ.)* Νουενβρίων *ἐν* Χαιρωνείᾳ, Ζώπυρος ᾿Αριστίωνος *καὶ* Παρμένων Ζωπύρου, *οἱ ἔγδικοι τῆς Δαυλιέων πόλεως, ἐμαρτυροποιήσαντο ἀπόφασιν ἀντιγεγράφθαι τὴν δοθεῖσαν ὑπὸ* Τ. Φλαουΐου Εὐβούλου *τὴν ὑπογεγραμμένην*—i. e. they brought with them an attested copy of the umpire's decision, the same which follows on the marble itself, beginning with the words just quoted before these last. The decision then was made ix. Kal. Novembres, U. C. 871, Coss. Hadriano Augusto ii. et Salinatore: i. e. in the second year of the Emperor Adrian, October 24 Roman, A. D. 118.

The second face of the stone, column b, records a decision too; which evidently arose out of this first, and was merely the following up or carrying out of that. For, to the best of the judgment to which we ourselves have been able to come, from the comparison of these two parts of the inscription together, the course of things in reference to this suit in general appears to have been this; that as it had been begun at least U. C. 869, A. D. 116, in the last year but one of the reign of Trajan, and Flavius

Eubulus, appointed umpire, to decide about it, at least two years before, having been continued in that capacity unto U.C. 871, A.D. 118—the third proconsul (called in the decree of Flavius, Clodius Granianus) thinking no doubt it was time to make an end of it, and taking it for granted the umpire must now be in a condition to pronounce some sentence or other about it, had called upon him (in strictness had ordered him, *κελεύσαντός με ἀποφήνασθαι*) to make his award accordingly; and at the same time, the better to carry it out, had appointed another arbitrator (who is called in the second column of the inscription Currius (or Curius) Autobulus), to adjudicate on any further questions which might arise out of it.

And with respect to any thing of this kind; the decree of Eubulus, it is evident, had determined how much of each of the three sorts of *ἀγρὸς* (the *ἀγρὸς δρύππιος*, the *ἀγρὸς εὐξυλείας*, the *χωρία πλατάνου καὶ μοσχοτομεῶν*) should go to the purchaser, Memmius Antiochus, and how much to the *Commune Dauliense*, out of the whole estate; but it had not specified from what parts of the whole these respective moieties should be taken. In other words, it had divided the property between the two claimants; but it had not *set out* the respective shares of each: it had not drawn the lines and boundaries which should separate the right of the one from that of the other *. This, it is evident, next to the original award, was the most important question; and for this, a special umpire (probably some one better acquainted with the locality itself than Eubulus) might be nominated by the proconsul Granianus, merely to follow up and to carry out the decision of Eubulus itself.

Accordingly this question of the *ὅροι*, measurements and boundaries, of these respective properties, and another relating to the breadth of surface which should be taken from both for the sake of a road, appear to have been actually those on which this second umpire was intended to decide; those and those only being the subject of the decree ascribed to *him*: though it must be admitted, (as it may be also collected from it,) that, between the time of the decision of Eubulus, and this decree of his, some further question had arisen, relating to the division of one of the three kinds of property in the soil, affected by the decree of Eubulus, the *ἀγρὸς δρύππιος* in particular; as if the part assigned to the purchaser, by that decree, the 435 acres, could not be made up to that amount without taking somewhat more from the share of the *Commune Dauliensium*.

The real nature of this question indeed cannot be understood at present; but, though Mr. B. seems to have been of opinion, it was something important enough to retard the further course of these proceedings a *whole year*, it is clear to our apprehension, that whatsoever it was, it was decided at this time and by this umpire, Curius Autobulus, in this part of his decree itself in which it is noticed, so far at least, as a question still contingent and hypothetical could be; viz. by ordering that, if there should be any ground of complaint that the 435 acres fell short, that too little had been assigned to the purchaser or his representative, or too much to the *Commune Dauliense*, the deficiency should be made up by resuming from the latter as much as should be necessary—*Τούτου ἔχειν ἀπαίτησιν Σεραπιάδα ἀπὸ τῆς Δαυλιέων πόλεως.*

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* It had left this to the purchaser himself: Τὴν δὲ ἀρχὴν τῆς *μετρήσεως κρείνω γενέσθαι τῆς χώρας ὅθεν ἂν βούληται Ἀντίοχος κ᾽, τ. λ.*

Now the decree of this second umpire, recorded on the other face of the stone, (col. b,) begins as follows: *Ὁδὸς δὲ ἡ ἐπὶ τὸν Ἀρχαγέτην ἕξει πλάτος καλάμους* δύο, τὰ δὲ σημεῖα καὶ τού(ς) ὅρους τῆς μ(ε)τρήσεως ἐνχαράξουσι κο(ι)νῇ ἐντὸς τῆς εἰκάδος τοῦ δωδεκάτου μηνὸς, ἡμῶν, ὅταν ἐνχαραχθῶσιν, ἐπελευσομένων αὐτούς.* This decree then prescribed a limit within which certain things (necessary to complete or carry out the former) were to be done—the 20th of the xiith month in the Phocian calendar for the time being. And that being the case, the first inference which we may draw from it is, that if such was the style of the calendar, at the date of these decrees, A. D. 118, and such was the style of the calendar, from the first adoption of the lunar correction itself, the Phocians could have made no change in the original style of their calendar, possibly for 610 years, from B. C. 493 to A. D. 118. And if they had made no change in the style all that time, that is a very good ground of presumption *a priori* that they had made none in any other of the peculiarities of their calendar from the first. The next is, that if this second decree was consecutive on the first, and the first was dated October 24 Roman, A. D. 118, and this second was dated before the 20th of the xiith month in the Phocian calendar of the time, the 20th of that month must have fallen later than October 24 Roman at least. And this may reasonably lead to the inference that the xiith month of the Phocian calendar at this time was falling *de facto* some time in November, and therefore the first, sometime in December: from which it will follow that, if the calendar bore date in December, at the epoch of the lunar correction, B. C. 493, and was still bearing date in December, A. D. 118, the Phocians could have made no change in the head of their calendar from B. C. 493 to A. D. 118, 610 years: and we have just seen that for the same length of time they could have made none in the style of their calendar, or in the names of its months. But if they had made no change in either of these things, either in the beginning of their year, or in the names and order of their months, for so long a time, it is not too much to assume, on the strength of these facts, and from the analogy of the rule of administration in these respects, that they had made none in the cycle of their calendar; and if they began with using the octaëteric cycle, B. C. 493, they were still using it, A. D. 118.

It is very true that they might have changed the cycle of their calendar, from the Octaëteric to the Metonic, some time between B. C. 493 and A. D. 118, without changing the beginning of their year, or the names and order of their months. But it is not easy to see *when* that could have been done in the case of the Phocians, in the natural course of things at least, or *why*. At the expiration of the first period of their octaëteric cycle, B. C. 333—only 13 years after the close of the second sacred war, B. C. 346—their nation was almost in a state of extinction; and it is not credible that any thing of that kind could have been done by them in common *then*. And though they recovered their place and standing among the rest of the Grecian communities, B. C. 280–278, after the invasion of Greece, and the attempt on Delphi, by the Gauls [1], the opportunity for any fresh correction of the calendar, in the regular course of things, had gone by for that time, and would not recur before B. C. 173. Nor is it easy to discover what motive there would be to it, even then. The octaëteric cycle of the fourth Type having been attached to December 26, the luna 3ª, dated from the conjunction, B. C. 493, was as true to the moon, B. C. 173, as any Metonic cycle of the time being; and if it was bearing date at that time on December 26 at midnight, as at first, it must be bearing date on the luna prima dated from the change; as very few of the Metonic cycles of the same period could have been doing.

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* This use of *κάλαμος*, for a measuring-reed, illustrates Rev. xi. 1. and other places

Let us therefore be permitted to assume, (until proof to the contrary can be produced,) that the Phocian correction having been originally the octaëteric, and attached to the epoch of the fourth Type, Dec. 26, B.C. 493, continued to be octaëteric, and so attached, down to B. C. 13. And that even then a correction of one day only being necessary, to keep it as true to the moon as ever, and a correction of one day only being administered to it accordingly, it continued to be octaëteric from B. C. 13 to A.D. 118 at least. And let us see what light this will throw on the relation of the two dates, of these two Phocian Inscriptions, one to the other, respectively.

i. The succession of the periods of this fourth Type, from the first to the fourth, will stand as follows—

*Phocian Octaëteris, Type iv, in successive periods of* 160 *years, from B. C.* 493 *to B. C.* 13.

| | | | |
|---|---|---|---|
| i. | Dec. 26 | B. C. 493 | Luna 3ª. |
| ii. | Dec. 26 | — 333 | — 2 |
| iii. | Dec. 26 | — 173 | — 1 |
| iv. | Dec. 27 | — 13 | — 1 |

And A. D. 117 being the 130th year of this Period, Cycle xvii. 2, the first month that year would bear date, Dec. 16, A. D. 117, and the twelfth, Nov. 5, A. D. 118, and the 20th of the xiith month, Nov. 24.

ii. The date of the decree of Flavius Eubulus having been ix Kal. Nov., October 24 Roman, U. C. 871—the proportion of the Roman to the Julian Kalends U. C. 871, and for some years, both before and after, was such [2], that October 24 Roman, U. C. 871, corresponded to October 25 Julian; and the decree of Flavius, if passed ix Kal. Nov., October 24 Roman, U. C. 871, was passed October 25 Julian, A. D. 118.

iii. The 20th of the xiith Phocian month, Period iv, Cycle xvii. 2, bear-

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[1] Origines Kalendariæ Italicæ, ii. 169.

[2] Ibid. iv. xcv.

## SECTION IV.—*On the Phocian Elaphebolia.*

We may take our leave of this Phocian calendar, with a brief notice of a festival peculiar to it, called the Ἐλαφηβόλια—the institution of which is attributed to a victory obtained by the Phocians over the Thessalians, under very peculiar

ing date Nov. 24, A. D. 118, reduced to the Roman style for the time being, was bearing date ix Kal. Dec., U. C. 871: the ix Kal. Decembres, U. C. 871, being the same thing as November 23 Roman, and November 23 Roman, U. C. 871, as November 24 Julian, A. D. 118.

iv. These two dates then, the date of the decree of Flavius, ix Kal. Nov. U. C. 871, and the 20th of the xiith Phocian month, in the Phocian calendar for the same year, reduced to the Roman style, were just one Roman month asunder, from the ix Kal. Novembres, to the ix Kal. Decembres, in one and the same year; October 24 to November 23 Roman, U. C. 871, October 25 to Nov. 24 Julian, A. D. 118. And the former of these Roman terms being the date of the decree of Flavius Eubulus, and the latter the *προθεσμία* prescribed by the decree of Curius Autobulus, supplementary to it, and intended to carry it into effect, we may perceive in that coincidence a probable explanation why this *πρυθεσμία* itself was fixed on in the second decree, in order to carry the provisions of the first into effect; viz. to allow for that purpose just one Roman month, from the ix Kal. Novembres to the ix Kal. Decembres. But that, if actually the case, will necessarily imply that the 20th of the xiith Phocian month of the time being must have been coinciding with ix Kal. Novembres, November 23 Roman, U. C. 871, and therefore with November 24 Julian, A. D. 118; and that will imply that the xiith month of the Phocian calendar, for the time being, must have been the xiith month of Cycle xvii. 2 of the Octaëteris of the fourth Type, continued from Dec. 26 B. C. 493, to November 24 A. D. 118, with no other changes than those which have been pointed out.

We will conclude our remarks on this Inscription with one more observation. The first owner of this property it seems was a certain Κλέα; and she seems to have been of Χαιρώνεια, where the suit, relating to it, appears to have been both heard and decided. Plutarch also was of Chæronea, and he seems to have both lived and died there. Among *his* contemporaries too was a certain Κλέα, to whom his treatise, De Iside et Osiride, is dedicated. Is it incredible that this latter, the friend of Plutarch, may have been the very same whose property, after her death, was the subject of the suit, and of the decisions recorded in these inscriptions, A. D. 116–118? Plutarch indeed appears to have been alive until A. D. 125, and even later; but his treatise, De Iside et Osiride, was certainly written long before A. D. 118: and there is no reason why Clea, his acquaintance and friend, may not be supposed to have died not only before him, but before A. D. 116.

circumstances; i. e. preceded by the decree which is called the *'Απόνοια,* as shewing the desperate alternative to which the Phocians were reduced, when they staked their all on the chance of this die. Τὸ *μὲν οὖν ψήφισμα Φωκέων,* says Plutarch, *'Απόνοιαν οἱ Ἕλληνες ὠνόμασαν. ἑορτὴν δ' ἐκ πασῶν μεγίστην τὰ 'Ελαφηβόλια μέχρι νῦν τῇ 'Αρτέμιδι τῆς νίκης ἐκείνης ἐν Ὑαμπόλιδι τελοῦσιν*[b]. The scene of the victory was *Κλεωναὶ τῆς Ὑαμπόλιδος,* and the commander of the Phocians at the time was *Δαΐφαντος,* described as the *τρίτος ἄρχων,* whose life Plutarch refers to[c], as one of those which had been written by himself, though it has not come down to posterity. And to the continued celebration of the same festivity, in the same place, and under the same name, and in commemoration of the same victory—even in his own time, he bears witness himself[d]: *'Ελαφηβολίων γὰρ ὄντων, εἰς Ὑάμπολιν ἐπὶ τὴν ἑορτὴν ἀφικνουμένους ἡμᾶς εἱστία Φίλων ὁ ἰατρός*[d]—*Τὴν μὲν γὰρ ἐν Μαραθῶνι μαχὴν ἄχρι νῦν 'Αθηναῖοι, καὶ τὴν ἐν Λεύκτροις Θηβαῖοι, καὶ νὴ Δία ἡμεῖς τὴν Δαϊφάντου περὶ Ὑάμπολιν ἑορτάζομεν*[e]; the speaker in this latter passage (a certain Theon[f]) being himself a Phocian.

With regard however to the date of this event—it is a very uncertain point. Herodotus has alluded to two victories of the Phocians over the Thessalians[g], both of them, as he implies, not many years before the expedition of Xerxes. And the second (and the more recent according to him) having been won at *Ὑάμπολις,* it might seem to have been this of the *'Απόνοια.* But Pausanias also has mentioned three victories of the Phocians; of which the first[h] is evidently the same with that which in Herodotus is the second, the victory at Hyampolis, when the horses of the Thessalians were disabled by the contrivance of the Phocians: the third[i] is as clearly that which is the first of Herodotus[k]: and the second[l], or the one between, was this of the *'Απόνοια*: so that on this principle, and supposing Pausanias' account to be correct as to the order and sequence of these victories, Herodotus must have omitted the most remarkable of all—this victory of the Ἀπόνοια—and confounded the order of the other two, making that at Hyampolis the second, though it was really the first.

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[b] De Mulierum virtutibus, *Φωκίδες.* Cf. Polyb. xvi. 31, 1, 2.

[c] Moralia, loco citato. cf. vi. 393. *Λείψανα. 'Εκ τῶν βίων. Δαϊφάντου βίος.*

[d] Symposiaca, iv. Problema i. cap. i.

[e] *Ὅτι οὐδὲ ζῆν κ', τ. λ.* xviii.

[f] Ibid. xx.

[g] viii. 27, 28.

[h] x i. 2.4.6.

[i] Ibid. 5.

[k] viii. 27.

[l] Cf. Strabo, x. 1. p. 3, 4.

But as both he and Pausanias agree that all these victories, whether two or three in number, and in whatsoever order relatively to each other, though not very remote events at the time of the Persian invasion, yet had preceded it, it may become a question whether they all belonged to the æra of the old solar calendar, or to that of the first lunar correction, from B. C. 493 downwards. And this we have not the means of determining; though we incline to the opinion that the most remarkable of the number, the victory of the Ἀπόνοια, was later than the date of the lunar correction, and an event of the interval between B. C. 493, the date of that correction, and B. C. 480, the date of the invasion of Xerxes. In the same dialogue of Plutarch to which we lately referred [m], it is dated 500 years and upwards before the time of the speaker—himself, as we have observed, a Phocian: Καὶ οὐδείς ἐστιν ἡμῶν ἐφ' οἷς αὐτὸς βέβρωκεν ἢ πέπωκεν οὕτως ἡδόμενος, ὡς ἐφ' οἷς ἐκεῖνοι κατώρθωσαν. ἐννοεῖν οὖν πάρεστι πόση τις εὐφροσύνη καὶ χαρὰ καὶ γηθοσύνη συνεβίωσεν αὐτοῖς τοῖς τούτων δημιουργοῖς, ὧν ἐν ἔτεσι πεντακοσίοις καὶ πλείοσιν οὐκ ἀποβέβληκεν ἡ μνήμη τὸ εὐφραῖνον. Five hundred years complete from B. C. 493 would give the time of this allusion A. D. 8—almost a century in anticipation of the probable age of these dialogues of Plutarch: so that this must be understood as a very general statement. We may conclude however that this event in Phocian history did really belong to the æra of the lunar calendar among them, yet came very near to its beginning. And as it took its name from the Elaphebolian Artemis, it is far from impossible it happened in that month of the Phocian calendar which coincided more or less with Elaphebolion in the Attic—and that, generally speaking, would be the third. The Julian dates of this third month, Cycle i. 1 of the Phocian correction, would be February 23 and March 24, B. C. 492; the limits of the Attic Elaphebolion, Cycle xiii. 5, were March 4 and April 2 the same year: so that the last 20 days of the third Phocian

[m] Ὅτι οὐδὲ ζῆν κ', τ. λ. xviii.

month this year were the first 20 of Elaphebolion. A similar coincidence would hold good B. C. 489, when the Julian limits of the former were Feb. 20 and March 20, and those of the latter Feb. 29 and March 29: and B. C. 487—when the limits of the former were Feb. 27 and March 28, and those of the latter, March 8 and April 6. In one of these years the victory was probably won; and in any case only a few years before the invasion of Xerxes. All that we can collect of the season of the Phocian Elaphebolia in the natural year, from any extant allusion to it, is that it was some time when dried figs only were to be had[n]; and that is a description of the winter, or of the early spring.

### SECTION V.—*On the Lunar Correction of the Primitive Solar year at Opus.*

The anonymous author of the Vita Sophoclis, among other accounts of his death, has given the following: Τελευτῆσαι δὲ *αὐτὸν Ἴστρος καὶ Νεάνθης φασὶ τοῦτον τὸν τρόπον. Καλλιππίδην ὑποκριτὴν ἀπ' ἐργασίας ἐξ Ὀποῦντος ἥκοντα παρὰ τοὺς Χόας, πέμψαι αὐτῷ στραφυλήν· τὸν δὲ Σοφοκλέα λαβόντα εἰς τὸ στόμα ῥᾶγα ἔτι ὀμφακίζουσαν ὑπὸ τοῦ ἄγαν γήρως ἀποπνιγέντα τελευτῆσαι.*

This statement does not rest simply on the credit of the two authors quoted by this Vita. The same tradition appears in the Epigram, on the death of Sophocles, ascribed to the younger Simonides[o]:

*Ἐσβέσθης γηραιὲ Σοφόκλεες, ἄνθος ἀοιδῶν,*
*οἰνωπὸν Βάκχου βότρυν ἐρεπτόμενος—*

It appears also in the lines ascribed to Sotades[p]:

*Αἰσχύλῳ γράφοντι ἐπιπέπτωκε χελώνη·*
*Σοφοκλῆς ῥᾶγα φαγὼν σταφυλῆς πνιγεὶς τέθνηκε·*
*κύνες οἱ κατὰ Θράκην Εὐριπίδην ἔτρωγον—*

And it is recognised by Lucian[q]: Σοφοκλῆς ὁ *τραγῳδοποιὸς ῥᾶγα σταφυλῆς καταπιὼν ἀπεπνίγη, πέντε καὶ ἐνενήκοντα ζήσας ἔτη.*

We may presume then that there must have been some foundation for this account of his death: and if so, it is to be considered in what manner such an account can be reconciled to another, which also has been left on record by Diodorus Siculus[r], and Valerius Maximus[s], and Pliny[t], that he died of excess of joy, at having gained the prize in one of the contests of tragedy and comedy? In our opinion, there is no mode of reconciling them, except by supposing that both in one sense or other may have been true; that Sophocles might really have come by his end in the manner reported in the former, and yet at one of the contests of the dramatic poets, and just after he had gained a prize in it, according to the latter.

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[n] Symposiaca, iv. i. 1. cf. Etym. M. *ἰσχάς.*

[o] Poëtæ Min. Simonides, cvii. Anthologia, i. 79. Simonides, cv.

[p] Stobæus, Florilegium, iii. 280. xcviii. 9.

[q] Macrobii, 24. iii. 226

In the first place, the stated times and occasions of these contests, or *Διδασκαλίαι*, in the Athenian year, dated from Hecatombæon, having been those of the Dionysia *ἐν ἀγροῖς*, the Dionysia *ἐν Λίμναις*, and the Dionysia *ἐν ἄστει*—the last exhibition of this kind, in which Sophocles might have taken part, could not have been either the *Διονύσια ἐν ἄστει* or the *Διονύσια ἐν Λίμναις*; for he was already dead before the *Διονύσια ἐν Λίμναις*, B. C. 405, as we learn from the Ranæ of Aristophanes: much more before the *Διονύσια ἐν ἄστει* the same year. They must therefore have been the *Διονύσια ἐν ἀγροῖς*—last before his death.

In the next place, it appears from the account of the Vita, that Callippides, who made Sophocles this present which accidently occasioned his death, was an actor by profession; and having been previously at Opus, in that capacity, was coming back to Athens, against the feast of the Choës; and this must imply that the stated time of one of the dramatic representations at Athens was either arrived or at hand when he returned. And though the *Χόες* in particular was ordinarily only another name for the *Διονύσια ἐν Λίμναις*, *Λήναια*, or *'Ανθεστήρια*, of which it constituted the second day; the name might have been transferred in the popular idiom even to the *Διονύσια ἐν ἀγροῖς*, just as Aristophanes in one instance[x] has transferred the name of the *Διονύσια ἐν ἀγροῖς* to the *Λήναια*, i. e. the *Χόες*. And though Callippides might have been returning on this occasion first and properly to the Dionysia *ἐν ἀγροῖς*, it might still be true that he was returning against the *Χόες*, which would be the next in course.

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[r] xiii. 103.

[s] ix. xii. 5. De morte non vulgari. Externa.

[t] H. N. vii. 54. 247.

[x] Acharnenses, 202.

Both these accounts then of the death of Sophocles, one, that it was the effect of an accident, the other, that it happened at the time of one of the scenic exhibitions at Athens, and very possibly just after he had gained the prize, may be true, and consistent with each other*. Assuming the truth therefore of both, and reasoning from both in conjunction, we may argue, i. That if Callippides was an actor by profession, and returning on this occasion to Athens from Opus, ἀπὸ ἐργασίας, he had been attending at the Dionysia at Opus. ii. That if he came back on this occasion from the Διονύσια at Opus, to the Διονύσια ἐν ἀγροῖς at Athens; the Dionysia at Opus were over a certain length of time at least, before the Dionysia ἐν ἀγροῖς at Athens were ready to begin. iii. The month of the Διονύσια ἐν ἀγροῖς at Athens having been Posideon, and the day of the month on which they began the 27 Posideon; the Dionysia at Opus this year must have been over before the 27th of Posideon in the Attic calendar the same year: and the year having been B. C. 406, and the 27 Posideon that year, December 20, it follows that the Dionysia at Opus, last attended by Callippides, must have been over before Dec. 20, B. C. 406.

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* We have seen supra[1] that Sophocles was still living when the news of the death of Euripides was received at Athens, not later than the first day of the Dionysia *ἐν ἀγροῖς*, B. C. 406; and that must have been a very critical coincidence, if he himself, as we shall see by and by, died before the end of that feast this very year.

There is great diversity of statements with respect to the chronology of the life of Sophocles. The Vita Sophoclis[2] supposes him to have been seven years younger than Æschylus, and 24 years older than Euripides; which would make him 99 years old at his death. And though, according to Valerius Maximus, he was nearly 100 years old at the composition of the Œdipus Coloneus[3], not long before his death, we need not hesitate to correct the text of the Vita, by reading *ιδ'* for *κδ'*, 14 for 24, which would make him only 89 years old at his death: much more in accordance with the truth.

*Σοφοκλῆς δὲ*, observes Athenæus[4], *πρὸς τῷ καλὸς γεγενῆσθαι τὴν ὥραν ἦν καὶ ὀρχηστικὴν δεδιδαγμένος καὶ μουσικὴν ἔτι παῖς ὢν, παρὰ Λάμπρῳ· μετὰ γοῦν τὴν ἐν Σαλαμῖνι ναυμαχίαν περὶ τρόπαιον γυμνὸς ἀληλιμμένος ἐχόρευσε μετὰ λύρας· οἱ δὲ ἐν ἱματίῳ φασί.* Eustathius repeats this statement[5]. There would be nothing incredible in it, if he was 14 years of age. Eustathius adds that he acted, some time or other, the part of Nausicaa in his own play of the *Πλυντρίαι*[6].

Suidas[7] dates his birth Ol. 73, and makes him 17 years older than Socrates, whose birth he dates Ol. 77. Here too we should correct his text, by reading 27 for 17, (*κζ'* instead of *ιζ'*,) and Socrates having been born B. C. 468[8], Ol. 77. 4, it will give the birth of Sophocles B. C. 495, or 494, Ol. 71. 2, agreeable to the Vita Sophoclis also. The Parian Chronicle makes him 28, in the year of Apsephion, (B. C. 468,) when he gained his first prize[9]: and that too would date his birth B. C. 495, or 496. The Auctor Vitæ supposes him to have been 55 years old, B.C. 438, seven years before the beginning of the Peloponnesian war; which gives his birth B. C. 493. But it dates his birth, *ἐπὶ Φιλίππου*, which, accord-

[1] Page 406.

[2] Cf. Scholia ad Ranas, ver. 75.

[3] viii. vii. 12. Externa: cf. Plutarch. An seni sit gerenda Respublica, iii.: Lucian, iii. 226: Macrobii 24.

[4] i. 37.

[5] Od. Θ. 264. 1596. 30. Cf. the Vita Sophoclis.

[6] Od. Z. 115. 1553. 66. So Athenæus, i. 37.

[7] *Σοφοκλῆς*.

[8] See vol i. 189 sqq.

[9] Epocha lvii. cf. Euseb. Chron. Arm. Lat. t. 209. Ol. 77. 1 or 2: Jerome, in Chron. Ol. 77. 1.

With regard to the stated time of these Dionysia, distinct from those of the Attic calendar, in the other Hellenic lunar calendars in general, we hope to have a future opportunity of shewing that their regular month was commonly the first or second of their respective calendars, and the usual day of the month, the sixth or the seventh, and sometimes the eleventh. And if we may assume that such was their rule in the calendar of Opus also, it will follow that the Dionysia at Opus, from which Callippides was returning on this occasion to the Dionysia ἐν ἀγροῖς, must have been celebrated in the

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ing to the Tables, might have been B. C. 495, according to the correction required by the Tables, must have been B. C. 494, Ol. 71. 2.

Assuming that he was really born in the year of Philip, some time between Gamelion 1, Jan. 4, B. C. 494, and Gamelion 1, Jan. 23, B. C. 493, from the former date to Gamelion 1, Jan. 22, B. C. 405, there would be only 89 years indeed, but there would be 90 archons; and his age being reckoned by archons, it might be said that he lived to be 90 [10].

[10] Diodorus Sic. xiii. 103. 80. 104: cf. Suidas Σοφοκλῆς: Chron. Arm. Lat. ii. 217. Olymp. xcii. 3. and Thes. Temporum, Olymp. xciii. 1.

The Parian Chron. Epocha lxv. makes him 91 at his death; Lucian, as we have seen, 95. Diodorus' statement, which rests on the authority of Apollodorus also, alone can be near the truth.

There is another traditionary account of the death of Sophocles, which would make it to have happened some time during the siege of Athens by Lysander, either the end of B. C. 405, or the beginning of B. C. 404. Cf. the Auctor de Vita: Pliny, H. N. vii. 30: Solinus, i. 118: Pausanias, i. xxi. 2. It is entitled to no credit.

first or the second month of that calendar; and in either case so as to be over, and to allow time for the return of Callippides to Athens, before the 27th of Posideon the same year.

Let us therefore compare this Attic date of Posideon 27, B. C. 406, with the date of the first and the second month in each of the Types of the Hellenic Octaëteris, the third, the fourth, and the fifth, the same year; in order to judge from this comparison, in which of them such a coincidence as this was possible, and in which it was not.

*Comparison of the Attic Posideon 27, Period i. 27, with the date of the first and the second months in the third, the fourth, and the fifth Types of the Hellenic Octaëteris, B. C.* 406.

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|---|---|---|---|---|
| i. | Attic Calendar, Per. i. 27. | Posideon 27. | Dec. 20. | B. C. 406. |
| ii. | Type iii. Cycle xviii. 2. | i Month. | Dec. 27. | — 406. |
| | | ii — | Jan. 25. | — 405. |
| iii. | Type iv. Cycle xv. 1. | i Month. | Jan. 2. | — 405. |
| | | ii — | Jan. 31. | — 405. |
| iv. | Type v. Cycle xi. 8. | i Month. | Dec. 8. | — 406. |
| | | ii — | Jan. 6. | — 405. |

It thus appears that in any of these types but the fifth, both the first and the second month this year must have fallen later than Posideon 27; but that in the fifth type, the first month must have fallen 12 days before it. The distance from Opus, on the Sinus Opuntius to Athens, by land, not having been more than 70 Roman miles direct, 80 by road, it would not require even in the month of December more than four days' journey; and if the stated date of the Dionysia at Opus was on or about the seventh of this first month, every one must allow it to have been abundantly possible that the same person might both have been attending the Dionysia at Opus, at their regular time, and yet easily have got back to Athens, by the 27th of Posideon, the stated date of the Dionysia ἐν ἀγροῖς*.

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* It is here to be observed also that if the death of Sophocles was really due to the cause assigned it by the Auctor de Vita, that too is an argument that the Opuntian Dionysia could not have fallen out later than

We infer then in this instance, as we did in the last, that if the calendar of Opus was reducible under any one general type of the octaëteric correction, from the third to the fifth, it must have been the fifth; and that consequently this too is one of those which, like the Phocian, attest the actual existence of the fifth type. We regret however that this is the sum and substance of all we have yet been able to discover of the proper history of this Opuntian calendar. We may presume only that, as Opus was the metropolis of the Locrians so called[y], the calendar of Opus in particular was probably that of the Locrians of this quarter in general.

## SECTION VI.—*On the argument of the existence of the fourth and fifth Types, from the coincidence of the* Cronia *of the Greek calendar with the* Saturnalia *of the Roman.*

Verrius Flaccus, observes Macrobius[z], in eo libello qui Saturnus inscribitur, *Saturnaliorum* inquit *dies apud Græcos quoque festi habentur*—And again[a], Adeo ut ante Romam in Græcia hoc sollemne cœpisse L. Accius in Annalibus suis referat his versibus—

some time in December. A bunch of grapes it appears was brought by Callippides from Opus, some of which were still unripe. If this is scarcely credible of the month of December; how much less so of that of January or February! That it might have been possible however in the month of December, may be collected from Galen, vi. 573, l. 4, from the bottom, Περὶ τροφῶν δυν. ii. 9: from which we learn that grapes could be kept two months: consequently from the end of October, where the vintage was late, to the end of December.

It will be seen we trust hereafter that the institution of the Διονύσια ἐν ἀγροῖς among the Athenians took place probably B. C. 503, attached to Posideon 27: and ten years after, (i. e. B. C. 493, the date of the fifth octaëteric Type, and as we are supposing the Opuntian correction also,) the 27th of Posideon in the Attic calendar, Cycle xiii. 4, was following Dec. 31, and the 6th of the first month of the Opuntian, Cycle i. 1, epoch December 26, was doing the same: the 28th Posideon was falling Jan. 1, and the 7th of the first Opuntian month Jan. 1 also. This coincidence probably had its weight in determining the date of the Opuntian Dionysia, so as to make it either the 6th or the 7th of the first month; the first or the second of the Attic Dionysia ἐν ἀγροῖς.

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[y] Strabo, ix. 4. 287.

[z] Saturnalia, I. iv. 211.

[a] Ibid. I. vii. ad fin.

> Maxuma pars Grajûm Saturno et maxime Athenæ
> Conficiunt sacra, quæ Cronia esse iterantur ab illis,
> Eumque diem celebrant—per agros urbesque fere omnes
> Exercent epulis læti, &c.

That an opinion of this kind was entertained by the learned Romans of former times, this testimony is competent to prove; and if such was their deliberate conviction, we are bound to suppose they had good reasons for it, and it was confirmed by the matter of fact in their time. And yet it is difficult, at first sight, to conceive what confirmation an opinion like this could have received from the matter of fact at any time; since the only Cronia of Hellenic antiquity which have come down to posterity, attached to a specific month and day of the month, are the Cronia of the Attic calendar, the stated date of which, in the Metonic correction at least, was the 12th of Hecatombæon: a date which, at no period in the history of the Attic or the Roman calendar, could have coincided with the 17th of the Roman December, the stated date of the Roman Saturnalia.

But the truth is, as we hope to shew hereafter, the Cronia of the ancient Greeks, in the first and proper sense of the term, were neither more nor less than the five epagomenæ of the primitive equable year, set apart, in the first instance, at a very early period of their history, for a special use and purpose, in honour of the Hellenic Cronus; and it is easily conceivable *a priori*, that, having once been dedicated to such an use and purpose, and set apart from the rest of the days besides as sacred to Cronos, they would continue to be observed in that capacity in numberless instances among the different Greek communities—all using the primitive equable year alike, and all having these five supplementary days at the end of their calendar alike. It is conceivable therefore, after a certain time, that wheresoever the primitive equable year was in use among the ancient Greeks, there this Cronian observance, attached to the epagomenæ of the primitive solar year, might be in existence also. And as the proper seat of the Cronian Feriæ, in all states of the equable year, was at the end of the calendar, it would follow that, at the different epochs of the corrections which we have hitherto been considering, their proper seat in the new lunar calendar, as well as in the old solar one, would be the last five days of the year. And as these last five days, in the case of the fourth correction, that of Jan. 2, B. C. 517, would coincide with Dec. 28, and in that of the fifth, of the epoch of Dec. 26, B. C. 493, would coincide with December 21, it is easy to see that in the administration of the calendars, belonging to these two types in particular, or ultimately derivable from them, no phenomenon might be more regularly exhibited than that of this coincidence between the Cronian Feriæ of those calendars and the Roman Saturnalia, both of them attached to the same Julian month of December, and both almost to the same days in that month also—and certainly to such days in that month respectively as could not fail frequently to coincide with each other.

We have little doubt that this is the true explanation of the supposed Hellenic origin of the Roman Saturnalia; the coincidence between the ancient Cronia of the Greek calendar and the Saturnalia of the Roman, though the latter of these was comparatively of modern date[b]. And this coincidence being properly possible *a priori* only of those Cronia of the Greek calendar, which, at the time of these lunar corrections, were falling in the month of December, the calendars, most likely to exhibit this phenomenon, would be those of the fourth and the fifth and the sixth Types. The fact of this coincidence then, which appears to have been known to the ancient Romans in many more instances than have come to our knowledge also, may be appealed to as one more argument of the actual existence of these three Types; and especially of that of the fourth and the fifth.

It has been seen already[c] that the Syracusans very probably had an observance of this kind, derived from the epagomenæ of the primitive equable year, at the epoch of their proper lunar correction, B. C. 542, and attached to the 26th of the last month in their lunar calendar, ever after. And we hope to shew hereafter, that even the institution of the Dionysia ἐν ἀγροῖς, among the Athenians, is a proof of the continued existence of the Cronia in the same place and on the same days of the primitive equable year, at the time of that institution, as ever before; and that the real account of these Dionysia in particular, in contradistinction to the other two, and as fixed to so different a time of the year, is this very fact, that the *Διονύσια ἐν ἀγροῖς* of the Attic calendar, at the time of their institution, succeeded to the place, if not to the name, (though even that is possible,) of the ancient Cronia.

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[b] Cf. our Origines Kal. Italicæ, i. 101 n: 453, 454: iii. 7, 8.

[c] Supra, page 412.

## CHAPTER IV.

### *On the Lunar Correction of the Primitive Solar year in Ætolia.*

### SECTION I.—*On the division of the natural or the civil year by the* Πλειάδων δύσις *and the* Πλειάδων ἐπιτολὴ *respectively.*

THE Cosmical setting and the Heliacal rising of the seven stars (the Πλειάδες or Vergiliæ,) in the opinion of the ancients, were two remarkable and strikingly-contrasted epochs of the natural year; the former the beginning of winter, the latter the beginning of summer—the former the natural token of the arrival of seed-time, the latter that of the arrival of harvest, or reaping-time. And by those opposite phenomena of the heavens, each at its stated time and season, it was commonly assumed that the civil year was divided into two equal halves.

Theophrastus, treating of periods of bisection in general, and of the prognostications of the phenomena of one of these halves, which might be derived from those of the other, applies the same distinctions not to the year only, but to the month and the day; i. e. to all the measures of time. *Πρῶτον μὲν οὖν ληπτέον*, says he[c], *ὅτι αἱ διχοτομίαι διορίζουσι τὰς ὥρας· ὥστε ἐπὶ τούτων δεῖ ἀθρεῖν καὶ ἐνιαυτὸν καὶ μῆνα καὶ ἡμέραν.* These cardinal epochs in the case of the day, and the corresponding ones in that of the night, were the *ἀνατολὴ*, the *πρωῒ*, the *μεσημβρία*, and the *δείλη*. Those of the month, or the moon, were the *πανσέληνον*, (the *διχοτομία*, or half of the month,) the ὀγδοὰς, (quarters, or half of the πανσέληνον,) the τετράς, (or half of the ὀγδοάς.) All these, as he proceeds, had their proper characteristic phenomena, at the opposite points of the month, wherein those of the one half sympathised with those of the other.

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[c] vi. De Signis Pluviarum, cap. i. 6. pag. 784. 3.

But of the year he observes, Διχοτομεῖ δὲ τὸν μὲν ἐνιαυτὸν Πλειάς τε δυομένη καὶ ἀνατέλλουσα· ἀπὸ γὰρ δύσεως μέχρι ἀνατολῆς τὸ ἥμισυ τοῦ ἐνιαυτοῦ ἐστιν· ὥστε δίχα τέμνεται ὁ πᾶς χρόνος. And indeed it is very true that the half of the natural year is as nearly as possible 183 sidereal days[d]; and consequently that the opposite phenomena of the rising of the same stars at one time and of the setting at another, for the same latitudes and meridians, must appear for a long time to divide the tropical year. And even in the lunar, or civil, year of the Greeks (if that may be assumed as the standard of the natural) the received dates of these two sidereal phenomena in particular, in the Parapegmata of antiquity, did nearly bisect the annual reckoning of the calendar. The date of the Cosmical setting of the Pleiads in the calendar of Meton and Euctemon was Scorpion 15, November 10; that of the Heliacal rising was Tauron 13, May 6; the interval between was just 177 days. In the calendar of Callippus, the date of the former was one day later, Nov. 11, and probably that of the latter also, May 7; the interval between being nevertheless the same. In the calendar of Eudoxus, the Cosmical setting was dated Scorpion 19, November 14, and the Heliacal rising Tauron 22, May 15, 182 days after the setting; consequently five days more than half a lunar year.

### Section II.—*On the attachment of the Calendar among the Greeks in some instances to the* Πλειάδων δύσις, *as well as the* Πλειάδων ἐπιτολή: *and whether the former was the case with the Ætolian as the latter was with the Achæan.*

Under these circumstances it will readily be admitted to have been possible *a priori* that, as some of the lunar calendars of antiquity bore date with the Πλειάδων ἐπιτολῆ, so others might do so from the Πλειάδων δύσις: and thus much might have been inferred even from the following passage of Censorinus[e]: Ideirco aliis a novo sole, id est a bruma, aliis ab æstivo solstitio, plerisque ab æquinoctio verno, partim ab autumno æquinoctio, quibusdam ab ortu Vergiliarum, nonnullis ab earum occasu, multis a Canis exortu incipere annus naturalis videtur. For if such were the different opinions, concerning the proper commencement of the natural year, held in different quarters in theory, it would be only consistent that the beginnings of the civil year, in different quarters also, should have exhibited the same distinctions in practice. Of the beginning of the civil year, among the Greeks, at the winter solstice, and at the summer solstice, and at the autumnal equinox, (three out of the seven natural epochs here enumerated,) our own inquiries have furnished abundant proof. The Roman correction of Numa Pompilius[f] is an instance of the same kind, among the ancient Italians. The Sothiacal year of the Egyptians, as we have also seen[g], and the Tetraëteris or Julian year of Eudoxus, as we shall see in this work, are instances of the epochs of years fixed *de facto* to the rising of the Dog-star; and we hope to bring proofs to light, in a future part of these Origines, of years which exhibited the same phenomenon, and might have been known to Censorinus, in other quarters of the world also. The Achæan calendar, and the Rhodian calendar, if no more, were instances of civil calendars, among the Greeks at least. attached to the Heliacal rising of the Pleiads: and in Censorinus' time the solar calendar of Damascus. and the lunar calendar of the Jews, were cases of calendars attached to the vernal equinox, and notoriously bearing date at that season of the natural year.

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[d] Cf. the Introduction to the Tables of the Fasti, Page 253, 254. Part iii. ch. 1. sect. xvii.

We have not indeed as yet met with an example of a Greek lunar calendar, which bore date at the Cosmical setting of the Pleiads; and yet from the analogy of the calendar of the Achaean league, which certainly did bear date at the opposite season of the Heliacal rising, it must always have appeared probable that somewhere or other there might be calendars, which bore date with the opposite phenomenon of the setting, and at the opposite quarter of the year: and if so, that such a calendar, in the time of the Achæan league, was no where so likely to be found as among their nearest neighbours, and most formidable as well as most constant rivals and antagonists, the Ætolians. And this presumption, at first sight, would seem to be confirmed by the testimony of Polybius. For he tells us, on a certain occasion, that the official year of the Ætolian prætor, Scopas, was as nearly as possible half over, when that of the Achæan prætor was just beginning[h]; and this prætor having been Aratus the younger, and *his* year having been B. C. 219, three years later than the time when the Achæan year began to bear date at the Πλειάδων ἐπιτολή[i]—if *his* year was beginning at the Πλειάδων ἐπιτολή, B. C. 219, that of Scopas. (half over when this was beginning,) it might be supposed, must have begun at the Πλειάδων δύσις, B. C. 220.

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[e] De Die Natali, xxi.

[f] Origines Kal. Italicæ, i. 282 sqq.

[g] Fasti Catholici, iii. 1 sqq. iv. 172 sqq.

And yet this conclusion, after all, would be mistaken. For Polybius adds, in explanation of this coincidence itself[k], Τὰς γὰρ ἀρχαιρεσίας Αἰτωλοὶ μὲν ἐποίουν μετὰ τὴν φθινοπωρινὴν ἰσημερίαν εὐθέως· Ἀχαιοὶ δὲ τότε περὶ τὴν τῆς Πλειάδος ἐπιτολήν. And that being the case, it was impossible that the Ætolian calendar could have borne date at the Πλειάδων δύσις. It will appear by and by, that it was the rule of the Ætolians to hold their elections on the very last day of the year; and yet, (as it must be implied by this fact, along with the above explanation of Polybius,) immediately after the autumnal equinox. If so, the first day of their year never could have coincided with the Πλειάδων δύσις, between which and the autumnal equinox, in all the Parapegmata of antiquity, there was not less than a month's interval, and in most of them there was as much as 48 days; i. e. a month and an half, at least.

### SECTION III.—*On the probability* a priori *that the proper Lunar Correction of the Primitive Solar Calendar among the Ætolians would be late in the order of such corrections.*

At the time of the Trojan war, and in the æra of the times anterior to that, the Ætolians do not appear to have been inferior to the rest of the Greeks, in any of the arts, whether of war or of peace. Thoas, the son of Andræmon, their leader at the siege of Troy, is as distinguished a character in the Iliad, as most of the other Greek chieftains on the same occasion[l]. Meleager, one of the most accomplished and renowned of the heroes of Hellenic antiquity[m], was an Ætolian. Tydeus and Diomed were of Ætolian extraction[n]. And Strabo observes of Calydon and Pleuron, the seat of the empire of Œneus in these times, *Αἰτωλῶν δ' εἰσὶ Καλυδών τε καὶ Πλευρὼν, νῦν μὲν τεταπεινωμέναι· τὸ δὲ παλαιὸν πρόσχημα τῆς Ἑλλάδος ἦν ταῦτα τὰ κτίσματα*[o]. The Heraclidæ by the mother's side derived their descent from the Ætolian stock; and Oxylus, the leader and guide of the last and the only successful attempt at their return, was an Ætolian also, and the founder of an Ætolian colony in the Peloponnese itself; which ever after subsisted and flourished at Elis, and in the course of time became the hereditary curators of the temple of the Panhellenic Jupiter, and presidents of the great national games at Olympia.

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[h] iv. 37, 2: cf. 27, 1.

[i] See supra, p. 369.

[k] iv. 37, 2.

After a certain time however in their early history, the communication between the Ætolians, and the rest of the common Hellenic family, appears to have been cut off. They disappear at least from the page of contemporary history even as handed down by tradition itself: and consequently, from the time of the return of the Heraclidæ to that of Solon, having been thus left to themselves, they seem to have lapsed into a state of comparative barbarism. Herodotus has nothing to say of them, except that among the suitors of Agariste, the daughter of Cleisthenes, one was an Ætolian, Males, the brother of Titormus, renowned for his bodily strength above all the Greeks of his time, but equally remarkable for his aversion to the society of his fellow men[p]. They are mentioned by Thucydides in his history of the Peloponnesian war[pp]; but even then, as an isolated and independent branch of the Greek family, which had little or no intercourse with the rest, and was scarcely known to them except by name, and in refinement and civilisation were little, if at all, superior to the rude and uncivilized tribes which they had for their neighbours on the north and west. Nor do they begin to emerge from their obscurity, and to make any figure in Greek history, till just about the time when the Achæan League also, under its first founders, began to assume an attitude and place of importance. But from this time forward, as the most constant and formidable of the competitors of the League, the Ætolians, we may presume, were already the most powerful, as well as the most enterprising and ambitious, of their neighbours.

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[l] Iliad. B. 638–644: H. 168: N. 215–218: O. 281–299: T. 239; Od. Ξ. 499.

[m] Iliad. I. 539–595.

[n] Cf. Pindar, Isthmia, v. 36.

[o] x. 2. 329.

[p] vi. 127.

[pp] iii. 94.

Under these circumstances, it was not to be expected *a priori*, that the Ætolians in particular would be found among the first to follow the example of Athens and Sparta, or even Elis, (though more closely connected with themselves, than either of the other two.) by adopting the lunar correction of the primitive solar year, as soon as it was first proposed; though they might do so in the course of time. It required 125 years to carry the impulse which was originated in Attica, in B. C. 592, into the heart of Macedonia, the furthest removed in geographical position, and in comparative civilisation and refinement, at that time, from the centre of Grecian culture; and it is scarcely to be supposed it would require less than 100, to extend the influence of the same example, (how many soever of the Greeks might have adopted the same change of their calendar meanwhile,) into the interior of Ætolia, where the inhabitants of the country, in comparison of the Athenians, the Bœotians, and the Greeks of the Peloponnese, were probably not more advanced in refinement B.C. 493, than the Macedonians in particular B. C. 468, in comparison of the Greeks in general.

## SECTION IV.—*On the epoch of the Octaëteric Correction of the Ætolians, Dec.* 26, *B. C.* 493, *as deducible from that of their Metonic Correction, October* 17, *B. C.* 332.

Assuming then that the most probable epoch of the Lunar Correction of the Primitive Solar Calendar among the Ætolians, when they too came to adopt it, could not have been earlier than that of the fifth Type, Dec. 26, B. C. 493; we may observe that the first Period of this Type, if adopted at this time, would come to an end Dec. 26, B. C. 333; and the epoch, Dec. 26, as fixed to the phasis, 160 years before, would require no correction at that time, to accommodate it to the change. The Ætolians by this time had probably begun to feel their own importance, and to have a presentiment of the part which they were destined to play in subsequent Greek history; and they might consequently at this same time determine to adopt the Metonic instead of the Octaëteric correction, as the calendar of advancement and progress among their countrymen everywhere: and in imitation of what so many had done under the same circumstances before, to transfer also the beginning of their year from the winter solstice to some other quarter of the natural year. With this view, according to Polybius, among the four quarters of the year, they must deliberately have given the preference to the autumnal equinox; and therefore have made that month of their old calendar the first of their new one, the stated epoch of which in the first year of the cycle came next to the autumnal equinox. And the mean autumnal equinox, B. C. 332, having fallen Sept. 26, the true Sept. 27, this month, it is evident, must have been the eleventh, the proper Julian date of which in the first year of the cycle was October 17. That this day B. C. 332 was also the day of the new moon, appears from the solar eclipse, the same year, October 16, 5.30 P. M. Paris. And this day having been assumed and constituted the epoch of a Metonic cycle, bearing date B. C. 332; it is evident from the scheme of that cycle[q], that the first day of the year so regulated could never fall earlier than Sept. 26, and as a general rule would always fall later.

## SECTION V.—*Confirmation of the epoch of the Metonic Correction by Polybius' account of the raising of the siege of Medion, B. C.* 231.

We shall proceed to confirm this view of the Metonic Correction of the Ætolians, by the testimony of Polybius, in the account which he has left of the circumstances which led to the first invasion of Illyricum by the Romans[r]. This invasion was ultimately due to the siege of Medion by the Ætolians: of the particulars of which it is not necessary for our purpose to say more than simply that, as it had been going on some time in the preceding part of the year, and the place had been reduced to the last extremity, it was expected by the besiegers that it must soon surrender at discretion. Just at this critical moment the stated time of the *ἀρχαιρεσίαι*, comitia, or annual elections, of the Ætolians came round in their calendar; and a fresh prætor being about to be chosen, to supersede the one who had hitherto commanded, and conducted the siege, Polybius proceeds to relate[s] how, in the confident expectation of the capture of the place, and at the instance of the outgoing prætor himself, it was decreed by the Ætolians beforehand that both the honour and the emoluments of the capture should be equally divided between the prætor who was just going out of office, and the prætor who should come in. *Δεδογμένων δὲ τούτων*, he continues[t], *καὶ δέον τῇ κατὰ πόδας ἡμέρᾳ γενέσθαι τὴν αἵρεσιν, καὶ τὴν παράληψιν τῆς ἀρχῆς, καθάπερ ἔθος ἐστὶν Αἰτωλοῖς*—the night before this very day, an Illyrian fleet arrived to the assistance of the besieged; which having ridden at anchor undiscovered all night, (implying that the night was dark throughout, as it would be at the end of the lunar month,) the next morning landed its forces, and surprised and routed the Ætolians, and so raised the siege[v].

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[q] Vol. iii. Appendix, Table xv.

[r] ii. 2-12.

The moral deducible from this narrative is a very striking one of its kind; and Polybius has taken advantage of the opportunity to expatiate upon it. But the coincidence, to which it is necessary for our purpose to direct the attention of the reader, is simply the fact that these Illyrians arrived the night before the election of a fresh prætor of the Ætolians; and this election was to have been followed by his assumption of the command without any delay. From which we infer, that the rule of the Ætolians must have been to elect their prætors on the very last day of their year, and to install them, of course, on the first. And this must have been done in the present instance. The election of a new prætor must have taken place in the proper quarter, (which it appears was Thermus in Ætolia,) on the very day on which the siege of Medion was raised; for the people of Medion, as we learn from the sequel of Polybius' account[x], retorting on the Ætolians in their own measure, in the record which they caused to be erected to commemorate their victory, joined the name of the prætor who was just coming into office with the name of the prætor who was just going out; as dividing equally between them the disgrace of the defeat. This reverse of fortune then must have befallen the Ætolians on the very last day of their official year.

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[s] ii. 2, 8–11. [t] ii. 3, 1. [v] ii. 3, 1–8. [x] ii. 4, 1, 2.

With respect to this year itself, if we compare Polybius' account of the proceedings in the first year of the Illyrian war (the consular year of Postumius and Fulvius, B.C. 229,) with the course of preceding events, we shall see that it must have been B.C. 231, and the time of the year about the autumnal equinox. The first event was, the death of Agron king of the Illyrians at the time[y], caused by the excesses to which he gave himself up, in consequence of the late victory over the Ætolians. Consequently B. C. 231. Then, the mission of a second fleet, by Teuta his queen, and successor[z], which could not have been earlier than the spring or the summer of B. C. 230; and, in consequence of their proceedings[a], the mission of the Roman ambassadors, Caius and Lucius Coruncanius*: the younger of whom, for the freedom of speech with which he discharged his commission, having been assassinated, by contrivance of Teuta, as he was returning[b], the Romans resolved on an expedition against Illyricum forthwith, and began to make their preparations for it the same year[c], but did not actually despatch it until the next, U. C. 525, B. C. 229[d].

Now the first Callippic period of the Ætolian calendar being supposed to have borne date October 17, B. C. 332, the second would bear date October 17, B. C. 256; and the 25th year of that period would begin October 22, B. C. 232, and end October 10, B. C. 231. This consequently would be the day of the surprise and defeat of the Ætolians by the Illyrians, and of the raising of the siege of Medion; only 15 days later than the date of the mean autumnal equinox the same year, Sept. 25, and only 13 later than the true, Sept. 27. Consequently not too late for a predatory excursion of the Illyrians even at this time, at so short a distance from their own country; and sufficiently near to the equinox to illustrate the assertion of Polybius, (that the elections of the Ætolians were always held directly after the autumnal equinox,) by a case in point; that of the elections, October 10 this very year.

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* Pliny, H. N. xxxiv. 11. 205, 206, calls them P. Junius and Titus Coruncanius: and speaks of both as killed on this occasion.

[y] ii. 4, 6.

[z] ii. 4, 7–9: 5, 1–9, 1.

[a] ii. 8, 2–13.

[b] ii. 8, 12. cf. Appian, Illyr. 7. Dio, Fragm. cli. 12.

[c] ii. 8, 13.

[d] ii. 11, 1–17. cf. ii. 9, 1–10, 8: 12, 1–8. Dio, cli. Eutropius, iii. 1. Florus, ii. 5. 1–5. Zonaras, viii. 19. 402 C. D.

The mention of the Ætolian prætors, as well as of those of the Achæans, is of frequent occurrence in Polybius, from B. C. 221 down to the close of the Bellum Sociale, B. C. 217; and the initia of their respective years, taken from our scheme of the Ætolian calendar for the time being, will stand as follows.

*Ingresses of the Ætolian year.*

Period ii. 36–40. B. C. 221–217.

| Prætors. | B. C. | | |
|---|---|---|---|
| Aristo[e] | 221 | October | 19. |
| Scopas[f] | 220 | —— | 8. |
| Dorymachus[g] | 219 | September | 28. |
| Agetas[h] | 218 | October | 18. |
| Ageläus[i] | 217 | —— | 7. |

The comitia of the Ætolians were held at Thermus[k]. There is nothing in any of these instances to militate against our assumption either of the nature or of the epoch of the calendar for the time being; but rather every thing to confirm it. The year of Scopas, of which Polybius observed that it was half over when that of Aratus the younger was beginning, entered October 8 B. C. 220, and that of Aratus, May 4, B. C. 219, only seven lunar months later at the utmost; though the remark itself, as it appears from the context, was made at a time which probably preceded the actual ingress of Aratus by half a month. The last year in the above list is that of Ageläus, made prætor in reward of his services, as the principal instrument in bringing about the pacification this very year, after the battle of Trasimen in Italy; the news of which, as we hope to shew hereafter, was received in Greece at the Nemean games, August 7: which would allow two months both for the negotiations preliminary to the peace, and for his election, after the conclusion of peace.

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[e] iv. 5, 1: 7, 1–10: 9, 9: 14, 3, 4. 9: 17, 1.

[f] iv. 27, 1: 37 2.

[g] v. 1, 2.

[h] v. 91, 1.

[i] v. 107, 5.

[k] v. 8, 3–7: (cf. 7, 8: xi. 4, 1.) xviii. 31, 5: xxviii. 4, 1.

### SECTION VI.—*On the names of the months in the Ætolian calendar.*

The names of the months in this calendar are almost entirely unknown. An inscription indeed is extant[l] in which the Delphian month Βουκάτιος is compared with the Ætolian month *Πάναμος*—which we shall have occasion to produce hereafter in illustration of the Delphian calendar. The Delphian Βουκάτιος, as we hope to shew, corresponded to the Attic Skirrhophorion. Therefore so, we may presume, must this Ætolian month Panamus have done. And that would agree to the etymon and meaning of the name itself, as one which denoted properly the harvest month, or the month in which the harvest of both kinds was completed; as we hope also to have a future opportunity of shewing. For this name of *Πάναμος* is of common occurrence in other calendars; and in them all it is generally found to occupy the same site relatively to the natural year, i. e. to the succession of seasons, and the cycle of vegetable production.

An inscription is extant also which ascertains the name of a month, in the calendar of Naupactus[m]: *Γραμματεύοντος θεαροῖς (θεωροῖς) Ἀ(ρί)σ(σ)τωνος τοῦ Ἀρίστωνος μηνὸς Διονυσίου.* The subject was the emancipation of a slave, *τῷ Διονύσῳ τῷ (ἐν Ναυπάκτῳ).* Mr. Boeckh dates it between the time of Philip of Macedon and that of Augustus[n]. And Naupactus at that time being the principal seat of the Ætolian union[o], its calendar was probably that of the union—and the name of any one of its months in particular was common to the Ætolian calendar in general *.

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* There is a passage in Ælian, De Natura Animalium, xi. 2, from which it may perhaps be inferred that the Epirotæ also had a common calendar:

[l] Corp. Inscript. 1702. i. 827.

[m] Ibid. 1756. i. 856-858.

[n] Ibid. p. 857.

[o] Cf. Phlegon, De Mirabilibus, cap. iii. pag. 38.

Θύουσι δὲ καὶ ἄλλως οἱ Ἠπειρῶται τῷ Ἀπόλλωνι, καὶ αὐτοὶ καὶ πᾶν ὅσον τῶν ξένων ἐπίδημόν ἐστι θύουσι, καὶ τούτῳ ἤδη τὴν μεγίστην ἑορτὴν ἄγουσι μιᾶς ἡμέρας τοῦ ἔτους, σεμνήν τε καὶ μεγαλοπρεπῆ. A story follows, of some dragons kept in a grove, and fed upon these occasions: Ἐὰν μὲν οὖν οὗτοι παρελθοῦσαν τὴν ἱέρειαν προσηνῶς θεάσωνται, καὶ τὰς τροφὰς προθύμως λάβωσιν, εὐθηνίαν τε ὑποδηλοῦν ὁμολογοῦνται καὶ ἔτος ἄνοσον κ᾽, τ. λ.

This is a pretty clear description of a ceremony which took place at the beginning of the year; but whether at midwinter, midsummer, the vernal equinox, or the autumnal, at first sight does not appear. Since however one object of it was to discover the future promise of the year, whether likely to be abundant or not, that seems to point either to the autumnal equinox and the Πλειάδων δύσις, or to the winter solstice; at either of which times the productiveness of the year might still be matter of uncertainty, but not at the vernal equinox or the summer solstice. It is probable therefore that this Epirote calendar belonged originally to the same type as the Ætolian, and either continued all along attached to the winter solstice, or like it, was transposed to the autumnal equinox.

We may take our leave of the consideration of this Type, with one more observation upon it; viz. That among the calendars reducible under it the Arcadian also is to be reckoned—though we are necessarily obliged by the plan of our work to reserve the proof of that fact for the second Part.

# DISSERTATION VIII.

## *Confirmation of the different Types of the Hellenic Octaëteris, from the first to the fifth, by general proofs.*

## CHAPTER I.

### *Proofs or illustrations derivable from the Tragic Drama of antiquity.*

### SECTION I.—*Testimony of the Plays of Æschylus.*

If Æschylus was born B. C. 524 and died B. C. 456 *, the whole of his life came within the period, during which the civil calendar, not only at Athens, but almost everywhere else among the Greeks, must have been regulated by one or other of the different Types of the Octaëteris, the existence of which has been established in the preceding Dissertations. If then any allusions to the calendar occur in his extant plays, it is to be presumed they must have been intended of some one or other of these, as *de facto* in use in his own day; and must be understood and explained accordingly. And as the scene of his plays is not uniformly laid in the same quarter, but in one instance on Mount Caucasus, in another at Thebes, in another at Susa, in a fourth at Delphi, and in the three remaining ones at Argos; these allusions, wheresoever they occur, it is to be supposed must have varied in the same way and in the same proportion—and cannot without impropriety be understood of any calendar but that of the time and of the place, to which everything else in the same representation is to be referred. This much was absolutely necessary *a priori* to the historical consistency of his plays themselves; and thus much at least, (unless some special reason to the

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* The birth of Æschylus is dated by Suidas [1], (when his text is properly corrected,) Ol. 69: *'Ηγωνίζετο δὲ αὐτὸς ἐν τῇ θʹ 'Ολυμπιάδι* (corr. *ξθ*) *ἐτῶν ὢν κεʹ*. Compare the article *Πρατίνας*, which will shew that he was already contending Ol. 70, B. C. 500–496. This dates his birth B. C. 524 or 525. The Parian Chron. [2] confirms that date, by making him 35 at the battle of Marathon. This Chronicon [3] dates his first victory in the year of Philocrates, B. C. 485. According to Suidas [1] he wrote 90 plays, (according to the Vita [4], 70, and five *Σατυρικὰ*,) and gained 28 victories—or according to others, (and among these is the author of the Vita [4]) only thirteen. Many of his plays were acted after his death, at the public expense: *Τιμῆς δὲ μεγίστης ἔτυχε παρὰ 'Αθηναίοις ὁ Αἰσχύλος, καὶ μόνου αὐτοῦ τὰ δράματα ψηφίσματι κοινῷ καὶ μετὰ θάνατον ἐδιδάσκετο* [5]: and Euphorion his son, according to Suidas [6], gained the victory four times with unpublished plays of his father.

When Sophocles carried his first contest against him, in the year of Apsephion [7] B. C. 468, he retired soon after in disgust to the court of

[1] *Αἰσχύλος.*

[2] Epocha xlix. cf. ad Ranas, 1331.

[3] Epocha li.

[4] Apud Schutzium.

[5] Scholia ad Acharnenses, 10. cf. Philostratus, Vita Apollon. iv. vi. 276 B–277 A: and the Vita Æschyli.

[6] In voce.

[7] Chron. Par. Epocha lvi: Plut. Kimon, viii: Vita Apud Schutzium. See supra, vol i. 194.

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Hiero, in Sicily; who himself was still living and reigning B. C. 468, though, as we have seen[8], he must have died the very next year, B. C. 467.

It does not appear that he ever returned to Athens; and yet he must have survived the death of Hiero several years. The Parian Chron.[9] dates his death in the year of Callias, B. C. 456, at 69—which is consistent with the date of his birth in B. C. 525. Suidas too supposes him 58 years old at his death, which may be merely a mistake of the text for 68. The Scholiast on the Acharnenses[10] also dates his death in the year of Callias: *Ἀντὶ τοῦ Αἰσχύλου τραγῳδίας, . . οὐ γὰρ ἔζη κατ' ἐκεῖνον τὸν χρόνον. ἐτελεύτησε γὰρ ἐπὶ ἄρχοντος Καλλίου τοῦ μετὰ Μνησίθεον τούτοις πρότερον ἐνίαυτον*—here the text is corrupt. The Acharnenses appeared B. C. 425, 31 years after B. C. 456: and Dindorf corrects the text, *τούτοις πρότερον ἐνιαυτῷ λ'*. The Vita Æschyli supposes him to have survived his retirement to Sicily only three years, and to have died at 63.

Of the mode of his death, which itself was premature, and the effect of an accident of some kind, see the references quoted below[11]. He belonged to the *Δῆμος* of Eleusis[12]; and consequently to the tribe Hippothoöntis[13].

[8] Supra, 401.

[9] Epocha lx. cf. Schol. ad Acharn. 10.

[10] Ad v. 10. cf. Jerome, Thes. Temp. Ol. 71. 1–75. 3. Eusebius, Chron. Arm. Lat. Ol. 70. 4–76. 2.

[11] Suidas, *Αἰσχύλου. χελώνη. μείων.* Sotades, apud Stobæum, supra, page 502: Ælian, De Natura Animalium, vii. 16: Vita Æschyli: Valerius Maximus, De Morte non Vulgari, ix. xii. 2. Externa: Pliny, H N. x. 3. 10.

[12] Vita: and the Ranæ, 913: and the Scholia.

[13] Smith's Geography in nomine.

contrary could be shewn to exist,) might be taken for granted in each of these instances, on the strength of its own probability.

Subject to this very natural presumption of the nature and reference of any allusions, direct or indirect, to the calendar for the time being in the remains of the three Greek tragedians, Æschylus, Sophocles, and Euripides, we propose to consider the testimony of each; beginning with that of the first and oldest of the number, Æschylus. And though it is immaterial to the end and effect of this review, in what order these plays may be taken, and we shall generally consider them in the order in which they are commonly arranged; yet in this present instance we shall begin with the Ἀγαμέμνων, and then pass to the Χοηφόροι and the Εὐμενίδες.

### i. The Ἀγαμέμνων.

The three unities of Time, and Place, and Action, which in the judgment of Aristotle were so indispensable to the integrity and perfection of the Tragic Drama, could not have been proposed to himself by Æschylus as necessary conditions of any of his plays; not at least in conjunction, and all alike. The unity of action, or argument, indeed may be said to be strictly observed in each: but the unities of time and place, it is clear, cannot have been so. The Eumenides opens at Delphi—and closes at Athens. The Agamemnon begins on the night of the capture of Troy; and ends on the day of the return and the death of Agamemnon: so that in the former of these instances the unity of place must have been considered of secondary importance, and in the latter the unity of time. And yet in each of these instances there is no apparent interruption in the continuity of the representation, even when the scene is thus transposed, or distant events are connected; from which it may reasonably be concluded that this disregard of time or place, if it did not sensibly interfere with the action, was considered by Æschylus an allowable artifice, necessary to the general effect of the representation, in the particular instance—and excusable, provided it was kept out of *sight*. To proceed then to the proposed review, in the first case which we intend to consider; that of the Agamemnon.

i. The Agamemnon opens on the night of the capture of Troy. The first of the *dramatis personæ* introduced on the stage is the warder of Ægisthus; and he is represented as watching on the top of the palace of the Atridæ for the first appearance of the beacon, which was expected to announce the capture—

Θεοὺς μὲν αἰτῶ τῶνδ' ἀπαλλαγὴν πόνων,
φρουρᾶς ἐτείας μῆχος, ἣν κοιμώμενος
στέγαις Ἀτρειδῶν ἄγκαθεν, κυνὸς δίκην,
ἄστρων κάτοιδα νυκτέρων ὁμήγυριν.—
Καὶ νῦν φυλάσσω λαμπάδος τὸ σύμβολον,
αὐγὴν πυρὸς φέρουσαν ἐν Τροίας φάτιν,
ἁλώσιμόν τε βάξιν [p].

And the expected signal appears this night—

Νῦν δ' εὐτυχὴς γένοιτ' ἀπαλλαγὴ πόνων,
εὐαγγέλου φανέντος ὀρφναίου πυρός.—
Ὦ χαῖρε λαμπτὴρ νυκτὸς, ἡμερήσιον
φάος πιφαύσκων καὶ χορῶν κατάστασιν
πολλῶν ἐν Ἄργει [q].

And the morning of this night is ascertained to have been that which followed the night of the capture, by the dialogue, which next ensues, between Clytemnestra and the Chorus: the news meanwhile having been conveyed to the queen, and the usual rejoicings on such occasions having been already begun by her orders throughout the city, and a council of Argive elders, summoned together, represented in this dialogue by the Chorus [r].

Clyt. Εὐάγγελος μὲν, ὥσπερ ἡ παροιμία,
ἕως γένοιτο μητρὸς εὐφρόνης πάρα [s]—
Chor. ποίου χρόνου δὲ καὶ πεπόρθηται πόλις;
Clyt. τῆς νῦν τεκούσης φῶς τόδ' εὐφρόνης λέγω.
Chor. καὶ τίς τόδ' ἐξίκοιτ' ἂν ἀγγέλων τάχος;
Clyt. Ἥφαιστος, Ἴδης λαμπρὸν ἐκπέμπων σέλας [t]—

The description follows of the course of the beacon [v], after which the queen again observes—

Τροίαν Ἀχαιοὶ τῇδ' ἔχουσ' ἐν ἡμέρᾳ [x]—

And *this* day, the day after the capture—and the *time* of the day that of the *ἄριστον*, or morning's meal of *this* day, going on at this very time in Troy—

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[p] Ver. 1 sqq.
[q] 20. cf. 25–33.
[r] 83–103: 264–270: 475–487.
[s] 264.
[t] 278.
[v] 281–316.
[x] 320.

*Τοὺς δ' αὖτε νυκτίπλαγκτος ἐκ μάχης πόνος*
*νῆστις πρὸς ἀρίστοισιν ὧν ἔχει πόλις*
*τάσσει, πρὸς οὐδὲν ἐν μέρει τεκμήριον,*
*ἀλλ' ὡς ἕκαστος ἔσπασεν τύχης πάλον*[y]—

So that while this dialogue was passing at Argos, the victorious Greeks were breaking their fast in the captured city. Lastly, the exordium of the first song of the chorus, after this interview and these explanations, runs in the same strain; taking it for granted that the night before had been the night of the capture, and this morning was the first after it—

*Ὦ Ζεῦ βασιλεῦ καὶ νὺξ φιλία*
*μεγάλων κόσμων κτεάτειρα,*
*ἥτ' ἐπὶ Τροίας πύργοις ἔβαλες*
*στεγανὸν δίκτυον, ὡς μήτε μέγαν*
*μήτ' οὖν νεαρῶν τιν' ὑπερτελέσαι*
*μέγα δουλείας*
*γάγγαμον, ἄτης παναλώτου*[z].

ii. The action of the Agamemnon opens at the first lunar dichotomy; that is, on the luna octava, or eighth of the moon. Here however it is necessary to explain that the lunar date of the capture of Troy, handed down by tradition, as we hope to shew more at large on a future opportunity, was the first lunar dichotomy. And though by the time of the Greek tragedians (as was very possible *a priori*) this had been confounded with the second, the recognised traditionary lunar date of the event was always one of these two, the first lunar dichotomy, the *luna octava*, or the second, the *luna vicesima tertia*, or *vicesima quarta*. And what we mean to assert of the time of the moon at which the action of the Agamemnon opens is, that, having to choose between these two lunar dates, the luna $8^{a}$, the first dichotomy, and the luna $23^{a}$, the second, Æschylus, in this instance, must have fixed on the former; which was in fact to adopt the oldest and most authentic (or rather the only true) date of the two. This may be proved as follows.

According to either of these dates, the precise time of the event in the noctidiurnal cycle was midnight: and midnight being the time when the moon sets in general at the first dichotomy, and when it rises in general at the second, it was a characteristic distinction of the circumstances of the capture that the city was taken, according to the date handed down by the one, just as the moon was setting, according to the date handed down by the other, just as it was rising. It follows that, on the assumption of the former date, the night of the capture, from the time of the event, was *ἀσέληνος*, and dark; on that of the former, after the same period, it was *illustris*, or light. The Agamemnon, as we have seen, opens just at the moment of the capture too, i. e. at midnight; and yet, as appears from its own representation, at a time of the night when there was no moon: which would be an exact description of the state of the case at midnight, at the *first* lunar dichotomy, but would be contradictory to it at midnight at the second—

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[y] Ver. 330.

[z] 355. cf. 475–484: 491–497: 587–589.

*Νῦν δ' εὐτυχὴς γένοιτ' ἀπαλλαγὴ πόνων,*
*εὐαγγέλου φανέντος ὀρφναίου πυρός* [a]—
*Ὦ χαῖρε λαμπτὴρ νυκτὸς, ἡμερήσιον*
*φάος πιφαύσκων* [a]—

In the soliloquy which precedes this apostrophe, there is no allusion to any of the celestial phenomena, but the stars—

*Ἄστρων κάτοιδα νυκτέρων ὁμήγυριν*—

And in the description of the course of the beacon from Mount Ida to Argos, the moon is not once mentioned, except in the way of comparison; which in itself is the strongest ground of presumption, that the real moon, to which this beacon is thus compared, could not possibly have been shining at the same time—

*Σθένουσα λαμπὰς δ' οὐδέπω μαυρουμένη,*
*ὑπερθοροῦσα πεδίον Ἀσωποῦ, δίκην*
*φαιδρᾶς σελήνης, πρὸς Κιθαιρῶνος λέπας*
*ἤγειρεν ἄλλην ἐκδοχὴν πομποῦ πυρός* [c].

iii. The action of the Agamemnon opens at or about the Πλειάδων δύσις; i. e. in the autumnal quarter of the natural year, and, as it was considered by the ancients, at the beginning of winter. This follows from the fact of its opening on the night of the capture, and the fact that the capture, according to its own testimony, happened at or about the Πλειάδων δύσις.

*Τούτων θεοῖσι χρὴ πολύμνηστον χάριν*
*τίνειν, ἐπείπερ καὶ πάγας ὑπερκότους*
*ἐπραξάμεσθα, καὶ γυναικὸς οὕνεκα*

[a] Ver. 20. [b] 22. [c] 296.

*πόλιν διημάθυνεν Ἀργεῖον δάκος,*
*ἵππου νεοσσὸς, ἀσπιδηστρόφος λεὼς,*
*πήδημ᾽ ὀρούσας ἀμφὶ Πλειάδων δύσιν·*
*ὑπερθορὼν δὲ πύργον ὠμηστὴς λέων*
*ἅδην ἔλειξεν αἵματος τυραννικοῦ*[d].

It follows from this note of time, taken along with the last-mentioned one, that the action must have opened at the first lunar dichotomy, nearest to the *Πλειάδων δύσις*, or the beginning of winter. And that may be confirmed by the following additional considerations.

i. The action opens in the tenth year of the expedition—

*Δέκατον μὲν ἔτος τόδ᾽ ἐπεὶ Πριάμου*
*μέγας ἀντίδικος,*
*Μενέλαος ἄναξ ἠδ᾽ Ἀγαμέμνων,*
*διθρόνου Διόθεν καὶ δισκήπτρου*
*τιμῆς, ὀχυρὸν ζεῦγος Ἀτρειδᾶν,*
*στόλον Ἀργείων χιλιοναύταν*
*τῆσδ᾽ ἀπὸ χώρας*
*ἦραν, στρατιῶτιν ἀρωγάν*[e].

ii. The return takes place in the tenth year also—

*Ἰὼ πατρῷον οὖδας Ἀργείας χθονὸς,*
*δεκάτῳ σε φέγγει τῷδ᾽ ἀφικόμην ἔτους,*
*πολλῶν ῥαγεισῶν ἐλπίδων μιᾶς τυχών*[f].

iii. The years of the expedition were dated from that season of the natural year at which the hare, or the other inhabitants of the woods and fields, were liable to drop their young. That at least is supposed to have been the time when the army, being already assembled at Aulis, against the expedition, the offence was committed, to which Æschylus attributes the *μῆνις* of Artemis, followed by the detention of the fleet; viz. the devouring of the hare with its embryo young by the two eagles, on the top of the mansion of the Atridæ—

*Βοσκόμενοι λαγίναν ἐρικύμονα φέρματι γένναν*[g]—

*Αὐτότοκον πρὸ λόχου μογερὰν πτάκα θυομένοισι*[h]—

iv. The winds which caused the detention blew from the Strymon, i. e. from the north, relatively to Aulis. Consequently they were the Etesian winds—

*Εὖτ᾽ ἀπλοίᾳ κεναγγεῖ βαρύ-*
*νοντ᾽ Ἀχαϊκὸς λεὼς,*
*Χαλκίδος πέραν ἔχων*

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[d] Ver. 821.
[e] 40.
[f] 503.
[g] 119.
[h] 137. cf. 140–145.

παλιῤῥόθοις ἐν Αὐλίδος τόποις,
πνοαὶ δ' ἀπὸ Στρυμόνος μολοῦσαι [i] κ', τ. λ.—

Ἔθυσεν αὑτοῦ παῖδα φιλτάτην ἐμοὶ
ὠδῖν', ἐπῳδὸν Θρῃκίων ἀημάτων [k].

And as these winds ceased to blow only about a month before the autumnal equinox, the actual arrival of the fleet on the coast of Troy, under such circumstances, could not have been dated earlier than the beginning of the autumnal quarter. And that such *was* the supposed time of its arrival there at last appears from the speech of Talthybius, describing the privations and sufferings which the army had to endure both on the way, before it reached its destination, and after it landed, in the country of Troy.

Μόχθους γὰρ εἰ λέγοιμι καὶ δυσαυλίας,
σπαρνὰς παρήξεις καὶ κακοστρώτους—τί δ' οὐ
στένοντες οὐ λαχόντες ἤματος μέρος;
τὰ δ' αὖτε χέρσῳ καὶ προσῆν, πλέον στύγος·
εὐναὶ γὰρ ἦσαν δηίων πρὸς τείχεσιν.
ἐξ οὐρανοῦ γὰρ κἀπὸ γῆς λειμώνιαι
δρόσοι κατεψέκαζον, ἔμπεδον σίνος
ἐσθημάτων, τιθέντες ἔνθηρον τρίχα.
χειμῶνα δ' εἰ λέγοι τις οἰωνοκτόνον,
οἷον παρεῖχ' ἄφερτον Ἰδαία χιὼν,
ἢ θάλπος, εὖτε πόντος ἐν μεσημβριναῖς
κοίταις ἀκύμων νηνέμοις εὕδοι πεσών—
τί ταῦτα πενθεῖν δεῖ [l]; κ', τ. λ.—

Nor does any part of this description more clearly prove the point for which we are contending, than this last allusion to the severity of a Trojan winter, before that to the oppressiveness of a Trojan summer. For had the army arrived in the spring, the order of these allusions must have been inverted, because their experience of a Trojan summer would have preceded that of a Trojan winter. It is clear then that, if the return is laid in the tenth year of the expedition, as dated from the time when they were all assembled at Aulis, ready to sail, before the detention, it must have been laid in the latter half of that year; consequently in the *autumn* of this tenth year, not in the *spring* of the next, which would have been the spring of the eleventh. The storm too, encountered by the way on the return, (the well known historical characteristic of the Νόστος,) was still a very recent event; and such storms, as the ancients unanimously attest, were most usual at the Πλειάδων δύσις. And that this in fact must have been the time at which the return of Agamemnon was taking place, (the beginning of winter, as bearing date from the Πλειάδων δύσις,) appears from the very words and ideas with which Clytemnestra welcomes him home.

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[i] Ver. 188. cf. 146–153.

[k] 1417.

[l] 555.

> *Καὶ σοῦ μολόντος δωματῖτιν ἑστίαν,*
> *θάλπος μὲν ἐν χειμῶνι σημαίνεις μολόν.*
> *ὅταν δὲ τεύχῃ Ζεὺς ἀπ' ὄμφακος πικρᾶς*
> *οἶνον, τότ' ἤδη ψῦχος ἐν δόμοις πέλει,*
> *ἀνδρὸς τελείου δῶμ' ἐπιστρωφωμένου*[m].

The compliment is no doubt a strained and unnatural one; but it is in character with the rest of the speech,—all the sentiments of which are forced and artificial. The idea which lies at the bottom of it is this; That the return of the husband and master to his home and family, in the midst of winter, was like bringing the warmth of summer to temper the cold of winter; just as on the same principle the presence of its lord and master, at the opposite season, was like cooling the heat of summer with the cold of winter*. And since Agamemnon is actually complimented here, as bringing with him first of all the warmth of summer, it must be implied thereby that he was returning in the winter.

iv. The action of the Agamemnon is closed on the day of the death of Agamemnon; and the day of his death is also the day of his return. Yet it opens on the day after the capture; and the day on which it opens is also the day of the return. Whatsoever interval therefore there must have been, in the nature of things, and from the necessity of the case, between these two events; it could not have been taken into account in the action of the play, which proceeds without interruption from the time when it begins to the time when it ends, and is all transacted in one night and one day. The chorus, which enter the stage on the morning after this night, never leave it again until the whole is over. The allusions, which occur at a later period of the action to the events of the former part, all proceed on this supposition of no interruption in the continuity of one and the same course of things—

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* It is no objection, that this opposite season of the year is described simply as the time when Jupiter should be beginning to make wine from the sour or unripe grape; for that describes the time when the grape began *περκάζειν*, or *variare se*, i. e. change colour, the first step in the process of its conversion into wine. And that time, for the climate of Greece, was critically the beginning of the *ὀπώρα*, that is, the dog-days, the hottest season of the year.

[m] Ver. 968.

> *Τάχ' εἰσόμεσθα λαμπάδων φαεσφόρων*
> *φρυκτωριῶν τε καὶ πυρὸς παραλλαγὰς,*
> *εἴτ' οὖν ἀληθεῖς, εἴτ' ὀνειράτων δίκην*
> *τερπνὸν τόδ' ἐλθὸν φῶς ἐφήλωσεν φρένας*[n]—

which ushers in the arrival of the herald Talthybius. And again, after he has delivered his message—

> *'Ανωλόλυξα μὲν πάλαι χαρᾶς ὕπο,*
> *ὅτ' ἦλθ' ὁ πρῶτος νύχιος ἄγγελος πυρὸς,*
> *φράζων ἅλωσιν 'Ιλίου τ' ἀνάστασιν*[o]—

And the city having been taken only the night before, the smoke of its ashes might naturally be alluded to only the next morning, as still marking the scene of its devastation: as it is in the speech of Agamemnon this very day—

> *Καπνῷ δ' ἁλοῦσα νῦν ἔτ' εὔσημος πόλις·*
> *ἄτης θύελλαι ζῶσι· συνθνήσκουσα δὲ*
> *σποδὸς προπέμπει πίονας πλούτου πνοάς*[p].

It is clear then, as we remarked at the commencement of these observations, that the unity of time is either entirely disregarded in the Agamemnon, or is so strictly maintained, that even possibility, not to say probability, is sacrificed to keep up the appearance of it; by making events consecutive and comprehended within the limits of one night and one day, which could not possibly have been less than many days, and in reality many months, asunder[*]. It follows, that from the day of the capture, whatsoever it was, the course of things, in the Agamemnon at least, must be considered to have passed at once to the day of the return, whatsoever that too was: and the traditionary date of the return, and of the death of Agamemnon also, (as we hope to shew on a future opportunity,) having been the *thirteenth* of the month, as that of the capture was the *eighth*—on this principle the action must have passed from the *eighth* of the month to the *thirteenth*; or rather from the *night* of the *eighth*, as the date of the capture, to the *morning* of the *thirteenth*, as that of the return.

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[*] The ancient critics took notice of this peculiarity in the economy of the play; and, according to the Scholiast, found fault with the poet on account of it: *Τινὲς μέμφονται τῷ ποιητῇ ὅτι αὐθημερὸν ποιεῖ τοὺς* Ἕλληνας *ἥκοντας.* It would be absurd to suppose that Æschylus himself could not have been aware of the anachronism which he was introducing into the plan of the play; and it is worth while to remark that, though notwithstanding he must have deliberately admitted it, he could not so far divest himself of his natural impression of what was probable or consistent, or of

[n] Ver. 489. [o] 587. [p] 818.

We shall now proceed to apply these conclusions to the illustration of the calendar.

The date of the Agamemnon is assigned by the argument: Ἐδιδάχθη τὸ δρᾶμα ἐπὶ ἄρχοντος Φιλοκλέους Ὀλυμπιάδι ὀγδοηκόστῃ, ἔτει δευτέρῳ. πρῶτος Αἰσχύλος Ἀγαμέμνονι Χοηφόροις Εὐμενίσι, Πρωτεῖ σατυρικῷ. ἐχορήγει Ξενοκλῆς Ἀφιδνεύς*. The year of Philocles, according to the common arrangement, bearing date B. C. 459, according to the corrected one, B. C. 458, both these notes of time, Olymp. lxxx. 2, and the archontic year of Philocles, agree together, and both denote B. C. 458.

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his historical recollections of what had been the actual course of things, as not to put language into the mouth of Clytemnestra, in her first account of the capture, which would imply that several days at least after that event would be passed by the victorious army on the spot, before they could be expected to set out on their return.

> Ἐν αἰχμαλώτοις Τρωικοῖς οἰκήμασιν
> ναίουσιν ἤδη, τῶν ὑπαιθρίων πάγων
> δρόσων τ' ἀπαλλαγέντες, ὡς δυσδαίμονες
> ἀφύλακτον εὑδήσουσι πᾶσαν εὐφρόνην [q]—

i. e. *every night*, not *all the night*. When he penned these lines he must have been thinking of the *winter*, which he well knew the Greeks actually spent at Troy, between the date of its capture, ἀμφὶ Πλειάδων δύσιν, and the date of the Νόστος, the spring of the next year. And under this very natural impression, the first of the evils and inconveniences from which he supposes them to have been delivered by the capture, is the frosts and dews, or snows, of the open air, to which they must otherwise have been exposed through this same winter.

* Cf. the Scholia ad Ranas, 1155: Τετραλογίαν φέρουσι τὴν Ὀρέστειαν αἱ διδασκαλίαι, Ἀγαμέμνονα, Χοηφόρους, Εὐμενίδας, Πρωτέα σατυρικόν. Aristarchus and Apollonius left out the Proteus, and called it a Τριλογία.

[q] Ver. 334.

It has been already observed that, as the scene of this play was laid at Argos, and the argument was an incident in Argive history, the calendar to which it would be accommodated, it is to be presumed, must have been the Argive. And the Argive calendar of the time of Æschylus being one of those which were derived from the third Type of the Octaëteric Correction, Jan. 7, B. C. 512, the year in which the Agamemnon is said to have been exhibited, and for which it must have been composed, B. C. 458, reduced to the æra of this Type, corresponded to Period i. 85, Cycle xi 5, the epoch of which was December 23, B. C. 459. The stated Julian date of the xith month of this calendar in this year of the cycle was October 14; and the *Πλειάδων δύσις*, for any climate in Greece, or for the climate of the Hellespont, in the time of Æschylus, must have been comprehended within the limits of that month, October 14 and November 12. The Agamemnon opened, as we have seen, in the month of the *Πλειάδων δύσις*; and on the eighth of that month. Let us assume then that it opened on the 8th of the xith month, Cycle xi. 5 of the Argive calendar, October 21, B. C. 458. Reckon back from this epoch 90 cycles of 8 years, or 720 years; and you come to the same epoch, in the same year of the cycle, October 21, B. C. 1178. We do not know Æschylus' date of the capture of Troy; but it so happens that we know Thucydides': and Thucydides' date of that event may vouch for that of Æschylus—as Thucydides in the early part of his life must have been a contemporary of Æschylus, and the received date of the capture of Troy among the learned Athenians, in the time of Thucydides, may well be supposed to have been that of Æschylus also. Now Thucydides' date of the capture was B. C. 1177, which differs by one year only from this of B. C. 1178.

It is far from improbable therefore that, simply by carrying back the cycle of the Argive calendar, from the 8th of the eleventh month, B. C. 458, in his own time, 90 cycles, or 720 years, Æschylus might suppose he should get to the traditionary date of the capture, the 8th of the same month, B. C. 1178. And it is a strong confirmation of this presumption that, as the date of the event thus obtained was October 21, B. C. 1178, so the true date, as we shall see we trust hereafter, was Oct. 19, B. C. 1181; and this date of Oct. 21 too was so near to the received dates of the Πλειάδων δύσις in Æschylus' time, that, if the capture happened on that day, it might well be said it fell out ἀμφὶ Πλειάδων δύσιν, whether critically on the day of the δύσις itself or not. In the Metonic Calendar, published 26 years after the date of the Agamemnon, the day of that phenomenon was Nov. 10; but in the Parapegma of Democritus, published in all probability before this play was brought out, it was laid down on October 30: and it might be known to Æschylus, B. C. 458, that Thales of Miletus, about 150 years before his time, had determined it, as we hope to see hereafter, to this very day, October 21 itself.

We may conclude then that the representation of things in this play was purposely accommodated by its author to the state of the Argive calendar, Cycle xi. 5, carried back from that time to the year of the capture of Troy. It opens therefore on the 8th of the eleventh month of that year of the cycle, reckoned according to the Greek rule of the noctidiurnal cycle, from October 20 at sunset, B. C. 1178; and it terminates on the 13th of the same month, reckoned according to the Julian rule, October 26 at midnight—the traditionary day of the month on which, as we shall see hereafter, the death of Agamemnon was supposed to have happened. Between these extreme dates, October 20 and October 26, it must have supposed the return of the Greeks; which in itself would have been no impossible contingency: for the example of Nestor and others, in the Odyssey[q], is demonstrative proof that the voyage from Troy to the Peloponnese itself was capable of being made in less than six days' time. And yet the storm, encountered by the way—at a time so near to the Πλειάδων δύσις—*de facto* would be a possible contingency also.

It remains only to point out the testimony of this play to the beginning of the year in the time of its author—contained in the prologue, or opening scene. where the warder is first introduced—

Θεοὺς μὲν αἰτῶ τῶνδ' ἀπαλλαγὴν πόνων,
φρουρᾶς ἐτείας μῆχος, ἣν κοιμώμενος

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[q] Od. Γ. 153 sqq. 165–183

*στέγαις Ἀτρειδῶν ἄγκαθεν, κυνὸς δίκην,*
*ἄστρων κάτοιδα νυκτέρων ὁμήγυριν,*
*καὶ τοὺς φέροντας χεῖμα καὶ θέρος βροτοῖς*
*λαμπροὺς δυνάστας, ἐμπρέποντας αἰθέρι* [r].

The first observation which may be made on this representation is, that the stars of winter are alluded to as presenting themselves to the eyes of the speaker, before those of summer; from which we must infer that his watch had begun in the winter, not in the summer. The next is that it had lasted a year or nearly so up to the time of this opening scene; consequently as coming to an end about the beginning of the winter quarter this year, it must have begun about the same time the year before. The third is, that the whole of this representation was evidently borrowed from Homer, who also speaks of Ægisthus as having placed and kept up a watch, in the tenth year of the war [s], which had lasted a year also, at the time of the return of Agamemnon; and this watch in Homer having begun and ended with the corresponding civil year of the time being, the same coincidence must be supposed to have held good of this of Æschylus. The year of this warder in the Agamemnon too began at the beginning of the civil year, and was kept up to the end, or nearly so; and forasmuch as it had not yet terminated at the Πλειάδων δύσις—yet was fast approaching to a termination even then—it must have been both beginning and ending just as the civil year at Argos for the time being (to which we have supposed the play to have been purposely accommodated) was also doing.

## ii. The *Χοηφόροι.* iii. The *Εὐμενίδες.*

These two plays were exhibited along with the Agamemnon, B. C. 458. The scene of the former is laid at Argos, that of the latter in the first instance at Delphi; afterwards at Athens: and the calendars of Argos and of Delphi in the time of Æschylus were the same.

We may have occasion hereafter to shew, from the testimony of Homer, the existence of an ancient belief in his time that the death of Agamemnon was avenged by Orestes his son, on the same day seven years afterwards on which he had been murdered seven years before: and we have already had occasion to observe that the traditionary date of that day among the Argives themselves seems to have been the thirteenth of the primitive Gamelion. If Æschylus adopted this date in his Agamemnon, as that of the murder, there is no reason why he may not be supposed to have adopted it in this play of the Choëphori, as the date of the expiation of his murder. And if he accepted the Homeric chronology for the year of the latter event (seven years after the year of the murder) and dated the former in the year of the return from Troy, B. C. 1178, Cycle xi. 5, of the Argive calendar of his time, pushed back to the epoch of the capture of Troy—he may also be supposed to have dated the latter B. C. 1171, Cycle xii. 4—the stated date of the first month of which in the calendar of his time would be Jan. 3 at midnight.

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[r] Ver. 1.

[s] Od. Δ. 524–527.

On this principle it might be assumed *a priori* that the Choëphori most probably must have opened on the 13th of this month, January 15. Nothing however is discoverable in it which would put this supposition to the test, by marking the season of the year, to which it was *de facto* accommodated. It derived its name from the ceremony with which it opened: the mission of Electra, and a chorus of Argive virgins, to offer χοὰς (feralia, or parentalia, funeral libations) at the tomb of Agamemnon [t]. And though in the Attic calendar a ceremony like this would seem to have been most proper for some one of the days in the month Anthesterion, between the 13th and the 19th, which were those of the Attic Feralia, properly so called [v], this mission it seems was a special occurrence, and had been occasioned by a dream of Clytemnestra's the night before. And this being supposed the night of the 13th of the month, the anniversary of the murder of Agamemnon itself—the dream itself is most probably and naturally accounted for by that coincidence.

The action of the play begins in the morning, and is brought to an end towards the close of this one day—

> *Τάχυνε δ', ὡς καὶ νυκτὸς ἅρμ' ἐπείγεται*
> *σκοτεινὸν, ὥρα δ' ἐμπόρους μεθιέναι*
> *ἄγκυραν ἐν δόμοισι πανδόκοις ξένων* [x]—

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[t] Ver. 22, 23: 84–99: 106–109: 32–46: 514–539.

[v] Cf. our Origines Kal. Italicæ, ii. 424 sqq. note.

[x] 660.

the reason being that Orestes had purposely delayed his arrival at the palace of the Atridæ until evening; the better to sustain the pretence of having come to Argos from Daulis or Phocis[y], which would have required two good days' journey at least. Hence also Clytemnestra—

> Ἀλλ' ἔσθ' ὁ καιρὸς ἡμερεύοντας ξένους
> μακρᾶς κελεύθου τυγχάνειν τὰ πρόσφορα[z].

iii. The Εὐμενίδες. The closing scene and words of the Χοηφόροι[a] would appear to have prepared the way for the opening scene of the Εὐμενίδες; in which Orestes is represented in the attitude of a suppliant within the precincts of the temple of Apollo at Delphi. And such was the construction put by the critics of antiquity on the connection of these two plays, as if the latter had taken up and continued the former on the very same day: Ὅρα δὲ μὴ ἐκβαίνῃ τὴν πίστιν, observes the Scholiast on the Εὐμενίδες[b], ὁ ἀπὸ Ἄργους εἰς Δελφοὺς ἥκων, εἶτα ἐκεῖθεν εἰς Ἀθήνας, καὶ ἔτι αἷμα στάζων ἀπὸ τοῦ ξίφους. But though these three plays certainly made part of the same τριλογία, and were exhibited together, and were connected in their respective arguments; it is no necessary consequence that the chronology properly so called of the next in the historical order of events would take up that of the one before it. The Agamemnon began and terminated at the Πλειάδων δύσις: but there is no proof that the Choëphori did the same. The Choëphori in like manner begins and terminates in the first month of the calendar for the time being; the Eumenides, on the contrary, must have begun and ended in the second: as may thus be shewn.

It opens, as we have observed, in the Temple of Apollo at Delphi: and it opens there in the oracular month, and on the stated day of the assumption of the Tripod by the Priestess, and of the consultation of the oracle, in that month—

> Ἔπειτα μάντις εἰς θρόνους καθιζάνω.
> καὶ νῦν τυχεῖν με τῶν πρὶν εἰσόδων μακρῷ
> ἄριστα δοῖεν· κεἰ παρ' Ἑλλήνων τινὲς,
> ἴτων πάλῳ λαχόντες, ὡς νομίζεται.
> μαντεύομαι γὰρ ὡς ἂν ἡγῆται θεός[c].

Now there was one month in the Pythian calendar, at this period in the history of the oracle, appropriated to this purpose, the same which, in the Delphian calendar, was afterwards called Busius; and there was one day in that month, the seventh, on which the oracle was open: but there was no other month, nor any other day, in the year at this time, so appropriated. On this principle, if the action of the Eumenides opened at Delphi in the oracular month, and on the oracular day; it opened on the 7th of Busius. And though the scene of the action is transferred by and by from the temple of Apollo at Delphi to the temple of Athena at Athens[d]; there is no interruption in the proceedings of one and the same day. The same course of things, which began on the morning of this day at Delphi, is continued and brought to an end before the evening of the same day at Athens. If the scene then is transferred from Delphi to Athens, this day, the date is transferred at the same time, from the 7th of Busius at Delphi to the corresponding day at Athens.

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[y] Ver. 674 sqq. [z] 710. [a] 1048–1062: 1063–1076. cf. Eumenides, 198–200: 230–243: 276–298: 443–469. [b] Ad 241=246. [c] 29.

Here then we must take into account the relation of the epochs in Type iii. of the Octaëteric Correction, to which the Delphian calendar was reducible, to those of Type i, to which the Attic in particular belonged. And this was such that the first of a given month in the former, was the eleventh of the corresponding month in the latter; and Busius in the Delphian calendar corresponding to Anthesterion in the Attic, the 7th of Busius in the former corresponded to the 17th of Anthesterion in the latter. If the action of the Eumenides then, almost as soon as it begins, is transferred from Delphi to Athens; it is transferred at the same time from the 7th of Busius to the 17th of Anthesterion: and though it begins on the 7th of Busius at Delphi, it ends on the 17th of Anthesterion at Athens[*]. The unity of place then is clearly not regarded in this play, and scarcely the unity of time; any more than in the Agamemnon: for the distance from Delphi to Athens was such as to render it physically impossible for the same action, which had begun at Delphi in the morning, to be brought to an end at Athens in the evening, except *κατ' οἰκονομίαν.*

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[*] The 17th of Anthesterion was nearly the middle date of the period of days, seven in number, from the thirteenth to the nineteenth of Anthesterion, in the Attic calendar, called the Μιαραὶ ἡμέραι: and Æschylus might purposely choose to attach the conclusion of such an action and fable as that of the Eumenides to one of those days in particular. It appears too from the testimony of two of the plays of Euripides, as we may see hereafter, that the Athenians had an ancient tradition among them to the effect

[d] Ver. 74–93: 235–489.

### iv. The Προμηθεὺς Δεσμώτης.

Nothing is discoverable in this play, calculated to determine the time of the year at which it opens, except the description of the wanderings of Io [e]; which are evidently supposed to have begun in the spring or the summer, when flocks and herds must have been pasturing in the open air. But the fable is transacted in Scythia [f], and on Mount Caucasus; and any allusion to the calendars of Æschylus' own time and country was scarcely to be expected from it. The force of the association of ideas however may be observed in the following lines, in which the winter is supposed to *lead* the year—

> *Ἦν δ' οὐδὲν αὐτοῖς οὔτε χείματος τέκμαρ*
> *οὔτ' ἀνθεμώδους ἦρος οὔτε καρπίμου*
> *θέρους βέβαιον* [g].

From an author, familiar with the order of the seasons in the Metonic Cycle, we should have expected an allusion to summer first, and then to winter, and then to spring.

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that the trial and absolution of Orestes for the murder of his mother, at Athens, and before the Areopagus there, coincided *de facto* with this period of the month in their calendar; the stated time and season at least of the χόες, which were properly attached to the twelfth of Anthesterion in the lunar calendar of later date. This tradition might have had its influence with Æschylus, in determining him to open the action of his Eumenides on the 7th of Busius at Delphi, in order to be able to transfer it from thence to the 17th of Anthesterion at Athens. Had he opened it on the 1st of Busius at Delphi, he might have transferred it to the 11th of Anthesterion at Athens; but the 1st of Busius in these early times, and in fact at any period of the history of the oracle, was not the stated day on which it was open: and the 12th of Anthesterion, the feast of the χόες in particular, at Athens, would have been altogether unsuitable for such an action as this of the Eumenides; but not the 17th of that month—one of the stated days of the *μιαραὶ ἡμέραι* themselves.

[e] Ver. 640: 652, 653: 674–677.

[f] 1.

[g] 454.

The date of this play is unknown. A play of the same name made part of a Τετραλογία, exhibited by Æschylus, Ἐπὶ Μένωνος, i. e. B. C. 472[h]; but this was the Προμηθεὺς πυρφόρος, or πυρκαεὺς, in contradistinction to the Δεσμώτης, and one of the class of the Σάτυροι of antiquity. We may perhaps approximate to its date by the help of the allusion to the eruptions of Mount Ætna, which occurs in it—

*Ἰπούμενος ῥίζαισιν Αἰτναίαις ὕπο·*
*κορυφαῖς δ' ἐν ἄκραις ἥμενος μυδροκτυπεῖ*
*Ἥφαιστος, ἔνθεν ἐκραγήσονταί ποτε*
*ποταμοὶ πυρὸς δάπτοντες ἀγρίαις γνάθοις*
*τῆς καλλικάρπου Σικελίας λευροὺς γύας*[i].

For it appears from Thucydides[k] that the Greeks knew historically of only two eruptions older than that which he mentions himself, in the sixth year of the war, the spring of B. C. 425; the second, 49 years before this. And though the Parian chronicle dates this second one B. C. 480[l], yet if we may assume Thucydides' date as the more correct, it will follow that the date of the Prometheus Desmotes must have been between B. C. 474 and B. C. 456, the date of the death of Æschylus. The eruption alluded to in this play is no doubt that which is alluded to also in the first Pythian ode of Pindar[m], the date of which was B. C. 470 *.

## v. The Ἑπτὰ ἐπὶ Θήβας. vi. The Πέρσαι.

We have discovered nothing in the Septem contra Thebas, which might have illustrated the calendar of Thebes, where the action is laid. The scholiast on the Ranæ[n] makes this play younger than the Persæ, which is dated by the argument Ἐπὶ Μένωνος, B. C. 472, when Æschylus gained the prize with the Phineus, Persæ, Glaucus, and the Prometheus (*πυρφόρος*); and according to some of the ancients[o], there was a second edition of the Persæ, exhibited at Syracuse, at the court of Hiero, in which the battle of Platæa made part of the action: though the death of Darius was a circumstance which entered neither into this second edition nor into the first.

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* The author of the Βίος Αἰσχύλου supposes him to have come into Sicily just at the time when Hiero was founding Ætna, alluded to in this ode of Pindar's (58–64) as already in being when that was written, or the victory celebrated in it (Pythiad xxix. B. C. 470) was gained. On this principle, the Prometheus Desmotes, it might be supposed, must have been written in Sicily. But this date for the retirement of Æschylus is inconsistent with the better authenticated cause and time of that secession, his failure at the Dionysia of Apsephion, B. C. 468.

[h] Argument of the Persæ.

[i] v. 365. cf. the Schol. in loc.

[k] Lib. iii. 116.

[l] Epocha liii.

[m] Ver. 40 sqq.

[n] Ad v. 1053.

The scene of the Persæ being laid at Susa, it was hardly to be expected *a priori* that it would be found to illustrate any Grecian calendar of the time. Yet, if we reckon on *five* months from the 20th Boëdromion, the day of the battle of Salamis, after which in this play Xerxes is supposed to have immediately begun his retreat[p], it will bring us to the middle of Anthesterion, as the earliest date of the arrival of the messenger, with the news of these events, at Susa, on the same day on which the action of the play begins. And Anthesterion being the lustral month at Athens, it would so far be the fittest for those offerings to the manes of Darius, with which the play opens[q]; even though the first occasion of them might have been the dream of Atossa the night before[r]. And as this month was the month of flowers too, it would explain the allusion to flowers among these offerings—

*Ἄνθη τε πλεκτὰ, παμφόρου γαίας τέκνα*[s].

The actual time in fact at which this play must be supposed to have opened is intimated by its own allusion to Mardonius and the army, as still in their winter quarters, upon the Asopus, in Bœotia; that is, the early spring, such as would be implied by the month Anthesterion itself—

*Κεἴπερ τάδ' ἐστὶ, πλῆθος ἔκκριτον στρατοῦ*
*λείπει κεναῖσιν ἐλπίσιν πεπεισμένος.*
*μίμνουσι δ' ἔνθα πεδίον Ἀσωπὸς ῥοαῖς*
*ἄρδει, φίλον πίασμα Βοιωτῶν χθονί·*
*οὗ σφιν κακῶν ὕψιστ' ἐπαμμένει παθεῖν,*
*ὕβρεως ἄποινα κἀθέων φρονημάτων*[t].

## vii. The Ἱκετίδες.

Neither can any thing be found in this play, which might determine its chronology or illustrate its calendar; though the scene here too is laid at Argos. All that we can discover is that it opens, first, with the arrival of the daughters of Danäus there, from Egypt, by sea, and by and by, within the compass of the same day, with that of the sons of Ægisthus also[v]. Consequently not earlier than the first of the months in which the sea was ordinarily considered to have been open, Elaphebolion, the third month in the Attic calendar; and probably in this instance as late as the month Thargelion, the fifth: since it appears that on the same day the flocks and herds were pasturing in the open air[x], and the nightingale was singing, or supposed to be singing[y]—circumstances these, taken from the state of things in the surrounding country at the time, which would be more proper for the month Thargelion than the month Elaphebolion. The date of this play too is unknown.

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[o] Scholia ad Ranas, 1060.
[p] v. 465.
[q] 201–225: 521–524: 607–622.
[r] 174–212.
[s] 618.
[t] 803. cf. 813–820.

### SECTION II.—*Testimony of the Plays of Sophocles.*

If the date of the birth of Sophocles was B. C. 494, and that of his death the end of B. C. 106[z], the greater part of *his* life also must have been contemporary with the period during which even the Attic calendar, and much more that of the rest of the Greeks, were still regulated by the octaëteric cycle.

His first victory as we have seen[a] was obtained at the Dionysia, in the year of Apsephion, B. C. 468, when he was 26 years old complete; and as it would seem with his play of the Triptolemus: and after this it is said that he was the author of 104 or 123 more, all recognised as genuine[b], except some 17 of the number. Of these, the Antigone (exhibited B. C. 440[c]) was reckoned to have been the thirty-second[cc]. On this supposition, he could not have written much more than one play on an average every year, from B. C. 468 to B. C. 440; nor much more than two a year, from B. C. 440 to B. C. 405: so that it would be far from improbable more than half the plays ascribed to him, and received as genuine, were written between B. C. 468 and B. C. 425, the date of the adoption of the Metonic calendar at Athens.

Among his extant plays, the date of the Philoctetes only

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[v] Ver. 710–723.
[x] 41–55: 538.
[y] 57–67.
[z] See supra, p. 504.
[a] Vol. i. 194.
[b] Vita.
[c] Vita Soph.
[cc] Argumentum.

(Glaukippus, B. C. 409) is known from testimony[d]; though it may be conjectured that the Œdipus Rex could not have been exhibited earlier than B. C. 431[e], nor the Antigone, than B. C. 440[f]. But this is not a matter of much importance to the object which we have in view. The allusions in his plays must be judged of according to the circumstances of the case; and in whatsoever quarter the scene is laid, of that we must suppose them to have been first and properly intended. Let us proceed then to consider the chronology of each; in the order too in which they are commonly arranged, though certainly not that in which they were originally composed and exhibited.

### i. The *Οἰδίπους Τύραννος*.

The scene of this drama was laid at Thebes, but it opened on the day of the return of Creon from Delphi; consequently in the oracular month at Delphi, and in the corresponding month at Thebes—the former, for the time of Sophocles, as we have seen, the month Busius, the latter, the second month in the Theban calendar, the proper name of which was Hermæus[g].

As then, at the early period to which the action of the Œdipus Rex belongs, there was only one day in the Delphian year open to the consultation of the oracle at all, the 7th of Busius, this play, it is manifest, under any circumstances, could not have opened earlier than the seventh of Busius: and since it opens *de facto* on the day of the return of Creon from his mission to consult the oracle, and as the distance of Delphi from Thebes, even *ἀνδρὶ εὐζώνῳ*, was not less than two days' journey, it could not have opened in reality earlier than the 9th of Busius in the Delphian calendar, and the corresponding day of Hermæus in the Theban.

Now the proportion of the epochs in the Octaëteris to which the Theban calendar was reducible (Type ii.) and in that to which the Delphian belonged (Type iii.) was such, that the first of a given month in the latter corresponded to the sixth of the same month in the former: the ninth of Busius in the Delphian calendar, for instance, to the fourteenth of Hermæus in the Theban. If then the action of the Œdipus Rex was opening on the ninth of Busius at Delphi, it must have been opening on the fourteenth of Hermæus at Thebes. And that this was actually the case may be inferred from the following words of the Chorus—

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[d] Argumentnm.

[e] Cf. Athenæus, vii. 1: x. 79. and the Argument of the Medea of Euripides.

[f] Cf. the Argumentum. Also Suidas, in Μέλητος: and Strabo, xiv. 1. 171.

[g] Supra, 288. 307. 309.

> *Εἴπερ ἐγὼ μάντις εἰμὶ*
> *καὶ κατὰ γνώμην ἴδρις*
> *οὐ τὸν Ὄλυμπον ἀπείρων,*
> *ὦ Κιθαιρὼν, οὐκ ἔσει*
> *τὰν αὔριον πανσέληνον,*
> *μὴ οὔ σέ γε καὶ πατριώταν Οἰδίπου*
> *καὶ τροφὸν καὶ μητέρ᾽ αὔξειν*[h]
> *κ᾽, τ. λ.*

This allusion to the *πανσέληνον* or full moon would be out of character to the time and place, and utterly inexplicable on any ordinary principle of the association of ideas, unless upon the supposition that the play was known to have been opening on the 14th of the *civil*, which in this instance was the same thing as the 14th of the *lunar*, month: in which case, and which only, it would be known also that the next day would of course be the 15th of the *civil*, the *πανσέληνον* of the *lunar*, month. And it would be understood to be so opening if it was known to have been opening on the earliest day on which an answer from the oracle at Delphi could have been received at Thebes: i. e. the ninth of Busius—two days after the oracular day itself[*]. But this will imply that the ninth of Busius at Delphi was the fourteenth of Hermæus at Thebes; which is a very important coincidence for the confirmation and illustration of both those calendars.

This Delphian month Busius and this Theban or Bœotian month Hermæus, were the first of the spring months in their respective calendars, and each answered in that capacity to the Attic Anthesterion. It is needless to add that the allusions which occur in this play to natural phenomena are characteristic of spring. Creon returns from Delphi with a crown of laurel on his head; which, though a characteristic of the errands of θεωροὶ in general[i], is nevertheless in this instance an emblem of spring, and became originally the distinguishing badge of those who were sent to consult the oracle, because the oracle was open only on one day in the spring. The old shepherd (who acts so important a part in bringing about the catastrophe, and whom Suidas calls Μελίβοιος[k]) is sent for out of the country, where he was tending his flocks at the time: and that too would be in unison with the character of the season, and with the pastoral habits of the Greeks, in any of these months, the Delphian Busius, the Theban Hermæus, or the Attic Anthesterion.

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[*] It is not inconsistent with this supposition, that v. 73, Œdipus is made to say—

> *Καί μ᾽ ἦμαρ ἤδη ξυμμετρούμενον χρόνῳ*
> *λυπεῖ τί πράσσει· τοῦ γὰρ εἰκότος πέρα*
> *ἄπεστι πλείω τοῦ καθήκοντος χρόνου.*

The oracle having been received early in the morning of the 7th of Busius, one who might have set out immediately after it, and made the best use of his time, (as Creon would be expected to do under the circumstances of the case,) might have arrived again at Thebes by the evening of the 8th of Busius.

[h] Ver. 1086.

The date of the Œdipus Rex has not been left on record. Athenæus however has told us[l] that both Sophocles for this play, and Euripides for his Medea, borrowed their μέλη from the Γραμματικὴ of Callias, in which the letters of the alphabet were the *Dramatis personæ*. Whether this play of Callias' was exhibited B. C. 432, in the year of Apseudes, may be doubtful; but that the Medea was exhibited B. C. 431, in the year of Pythodorus, appears from its argument. We may presume then that the Œdipus Rex of Sophocles also was not exhibited before B. C. 431. And though this play, in the judgment of Aristotle[m], was the masterpiece, not of Sophocles only, but of the Greek Tragic Drama in general, at its first representation, it did not gain the prize: Σοφοκλῆς Φιλοκλέους ἡττᾶτο ἐν Ἀθηναίοις τὸν Οὐδίπουν[n].

### ii. The Οἰδίπους ἐν Κολωνῷ.

The scene of this play was laid in Attica, and in the δῆμος of Colonus[o], from which it has derived its name. Its chronology therefore is no doubt to be referred to the Attic calendar. The story relating to its composition, late in the life of its author, was adverted to supra[p]; and it appears from the second argument that it was acted in the year of Micon, four years after the death of Sophocles, B.C. 402–401—under the auspices of the younger Sophocles, his grandson.

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[i] See supra 20 note. Cf. the Hippolytus of Euripides, 281. and the Schol.: 659, 660: 792: 806, 807: Schol. in Orest. 373: Ion, 78–80: 102–106: 112, 113: Schol. in Plut. 21.

[k] Μελίβοιος. cf. also in Οἰδίπους.

[l] vii. 1. cf. x. 79.

[m] Poetica, 11, 163. 6: 15, 168. 11: 16, 169. 26.

[n] Aristides, xlvi. 334. 8. Cf. the Argument of the Œdipus Rex: Χαριέντως δὲ Τύραννον ἅπαντες αὐτὸν ἐπιγράφουσιν, ὡς ἐξέχοντα πάσης τῆς Σοφοκλέους ποιήσεως, καίπερ ἡττηθέντα ὑπὸ Φιλοκλέους, ὥς φησι Δικαίαρχος. This Philocles was a nephew of Æschylus, and the author of an Œdipus too: Suidas, Φιλοκλῆς.

The Lenæa that year would bear date Feb. 16–18, the Dionysia, March 17–19: and though it is not known from testimony at which it was actually exhibited, the internal evidence of the play itself leads to the inference that it must have been intended for the Dionysia more probably than for the Lenæa. For i. it opens at that season of the year, at which the laurel, the olive, the vine, for the climate of Attica, were already in leaf, the flowers were everywhere expanded, the nightingale was in full voice and song—

*Χῶρος δ' ὅδ' ἱρὸς, ὡς σάφ' εἰκάσαι, βρύων*
*δάφνης ἐλαίας ἀμπέλου· πυκνόπτεροι δ'*
*εἴσω κατ' αὐτὸν εὐστομοῦσ' ἀηδόνες*[q].

And though such a picture as this might have suited the state of things in the month Anthesterion in general, it would be much more proper for that in Elaphebolion—the middle one of the three spring months; in which the promise and bloom of returning spring, which first began to be developed in Anthesterion, had already attained to their acme, but were not yet past it.

ii. An allusion occurs in this play to the state of the growing corn at the time, which would be much more suitable for the month Elaphebolion, than the month Anthesterion.

*Τὼ δ' εὐχλόου Δήμητρος εἰς ἐπόψιον*
*πάγον μολοῦσα*[r].

This epithet *εὐχλόου* is significant. *Χλόη* was properly the green blade of the barley; and *Δημήτηρ Χλόη*, to whom the first fruits of the barley-harvest were wont to be offered on the 6th of Thargelion[s], derived that title from her relation to the growing barley. It is therefore implied in this epithet that as viewed from this eminence, in the direction of the plain of Eleusis, the face of the country, at this time, was covered with the rising barley, still green indeed, and in the blade, but fast approaching to maturity; a spectacle much more likely to have been presented in the month Elaphebolion than in that of Anthesterion.

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[o] Cf. ver. 666. Εὐίππου ξένε. [p] Page 504 note. [q] 16. cf. 670–685.
[r] Ver. 1600. [s] Vol. i. 106.

### iii. The Ἀντιγόνη.

The scene of the Antigone is laid at Thebes. The play opens the day after the retreat of the besieging army[r]. It must of necessity therefore have opened in the military season; either the spring or the summer. And here it is to be considered that, in shaping the plan and circumstances of this fable, Sophocles would probably take into account the tradition relating to the foundation of the Nemean Games by the Seven, on their way to Thebes: and as the Nemean Games in his time were celebrated both in the fifth month of the Primitive Octaëteris and in the ninth, he would consequently lay the action of his Antigone in one or the other of these months too. The allusions, which occur in the play itself, favour the former supposition[s]: from which we may infer that he too, like Statius, (as we hope to see hereafter,) must have reckoned the Nemea, attributed by tradition to the Seven, the Nemea of spring or midsummer, not those of summer or autumn.

The date of this play is not known for certain; though it appears from the argument that it was represented just before the revolt of Samos, in the sixth year of the thirty years' truce[t], B. C. 440: the success of Sophocles with this play, as it is said, having procured him the *στρατηγία*, or command, against Samos, in which he was associated with Pericles[v] this very year. In that case the date of the play itself would more probably be the year of Timocles, B. C. 440, than that of Myrichides, B. C. 439 *.

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* A sentiment occurs in this play, v. 911—

*Μητρὸς δ' ἐν Ἅιδου καὶ πατρὸς κεκευθότοιν,*
*οὐκ ἔστ' ἀδελφὸς ὅστις ἂν βλάστοι ποτέ—*

which Herodotus, iii. 119, puts into the mouth of the wife of Intaphernes. It seems too remarkable to have been equally original in both; which then may be supposed to have borrowed it from the other? Probably

[r] Ver. 100 sqq.

[s] 415–421.

[t] Thucyd. i. 115–117.

[v] Cf. Strabo, xiv. 1. 171: Suidas, Μέλητος.

## iv. The *Aἴας*.

The scene of this play is laid in the plains of Troy. It could scarcely then have been expected *a priori* to illustrate any of the Greek calendars, unless perhaps that of Athens, of Sophocles' own time. It was calculated however, from its subject itself, to furnish some clue to the discovery of his opinion respecting the date of the capture of Troy; an event which could not have been supposed by him much later than the death of Ajax. And it may be collected accordingly from the intimations of this play that Sophocles' belief on this point inclined him to date the capture (contrary to Æschylus, and, as we shall see hereafter, to Euripides also) in the spring or summer, not in the autumnal, quarter of the year; and consequently not at the first lunar dichotomy, but at the second.

For, i. The flocks and the herds were feeding in the open air, by night as well as by day, at the time when Ajax made this attack upon them—

> Ὡς καὶ τῆς νῦν φθιμένης νυκτὸς
> .. .. .. ..
> Σὲ τὸν ἱππομανῆ
> λειμῶν' ἐπιβάντ' κ', τ. λ.[w]

which implies that the spring was far advanced.

ii. The chorus speak of their stay before Troy, as having now got into such and such a *spring*, not such and such an autumn, of the natural year—

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Sophocles; if Herodotus, according to the testimony of antiquity, actually recited his history at the Panathenæa any time before B. C. 440. Plutarch, in his treatise, An Seni sit gerenda Respublica, iii, has quoted an epigram of Sophocles', written in his 55th year, and consequently B. C. 440: Τουτὶ δὲ ὁμολογουμένως Σοφοκλέους ἐστὶ τὸ ἐπιγραμμάτιον·

> Ὠιδὴν Ἡροδότῳ τεῦξε Σοφοκλῆς, ἐτέων ὢν
> πέντ' ἐπὶ πεντήκοντα—

And if this Herodotus is to be understood of the historian, that must be decisive that Sophocles was acquainted with his history.

[w] 141 sqq. cf. 21–27. cf. 1–5. 42. 47. 53, 54. 208, 209. 216. 220. 230–234. 296–300. 360. 366. 374–376. The Vetus Scholiasta observes on this word, ἱππομανῆ—Ἐφ' ᾧ οἱ ἵπποι μαίνονται, ἢ τὸν . . ἀνθοῦντα καὶ ἐνυβρίζοντα τῇ χλόῃ διὰ τὸ πλῆθος.

Ἐγὼ δ' ὁ τλάμων
παλαιὸς ἀφ' οὗ χρόνος
Ἰδαίᾳ μίμνω
λειμωνίᾳ ποίᾳ
μήλων [x] [*].

iii. Teucer is absent when the action opens, on an expedition abroad, and returns only the same day [y]: which also is an argument that the military season had long been arrived.

iv. It might even be inferred, from the internal evidence of the play, that the action opened at, or soon after, the first lunar dichotomy, and possibly of the month Thargelion; on the 23rd or 24th of which those, who dated the capture of Troy at the second dichotomy, placed that event.

For though the attempt of Ajax, which gave its name to the play, was made by night, and he was discovered by one of the scouts of the army as he was returning from it [z]; he is not supposed to have been discovered by the light of the moon, but by day-light, early indeed in the morning, but still by the morning twilight. Nor does an allusion to the moon occur any where. Now this is explained by the account of the time selected by him for the attempt, as given by Tecmessa to the Chorus—

Ἅπαν μαθήσει τοὔργον, ὡς κοινωνὸς ὤν.
κεῖνος γὰρ ἄκρας νυκτὸς, ἡνίχ' ἕσπεροι
λαμπτῆρες οὐκέτ' ᾖθον, ἄμφηκες λαβὼν
ἐμαίετ' ἔγχος ἐξόδους ἕρπειν κενάς.
κἀγὼ 'πιπλήσσω καὶ λέγω· Τί χρῆμα δρᾷς,
Αἶαν; τί τήνδ' ἄκλητος, οὔθ' ὑπ' ἀγγέλων
κληθεὶς, ἀφορμᾷς πεῖραν, οὔτε του κλύων
σάλπιγγος; ἀλλὰ νῦν γε πᾶς εὕδει στρατός [a].

The time here described was not the beginning of the night, but the end [†]; when the stars, which had risen the evening before, and had shone all night, were now set or setting. Ajax then was choosing a time for his attempt, at which, if there had been a moon the night before, it must nevertheless now have been set: and the time being determined by the context to the end of the second, and the beginning of the third and last, watch of the Greeks, (each of them four hours long,) it is far from improbable that the poet intended the action in this play to be considered as having opened at the first dichotomy, when the moon being eight days old would be understood to have set at midnight *.

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[*] This is the old reading of the text, confirmed by that of the Scholia. The reading in Dindorf's edition however is very different—

Ἐγὼ δ' ὁ τλάμων παλαιὸς ἀφ' οὗ χρόνος
Ιδαῖα μίμνω λειμώνι' ἄποινα, μηνῶν
ἀνήριθμος κ', τ. λ.

[†] The Vetus Scholiasta mistook the sense of this passage, in explaining *ἄκρας νυκτὸς*, by *περὶ πρῶτον ὕπνον*. Ἀκρόνυξ, ἀκρόνυχος, ἀκροκνεφαῖος, might require to be so understood: but *ἄκρας νυκτὸς* may also be under-

[x] 599. [y] 342. cf. the Scholia. [z] Ver. 29-31. [a] 284.

## v. The Φιλοκτήτης.

The scene of this drama is laid in the island of Lemnus. It might have been expected *a priori* therefore that possibly it would be found to illustrate the calendar of Lemnus, of the nature of which, and the epoch, something may perhaps be said hereafter. But the truth is, no allusion to the calen-

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stood of the end of the night—of a time towards morning—not early in the evening; and it requires to be so understood here. Cf. Suidas, in *ἄκρας νυκτός*. So Theophrastus (Histor. Pl. iii. 5, 1) uses *ἄκρου ἔαρος*, for the end of spring. These phrases would be exprest in Latin by Præcipiti nocte, Præcipiti vere. The time really intended by Sophocles is that which Virgil describes in a sort of paraphrase, Æneid ii. 8—

Et jam nox humida cælo
Præcipitat, suadentque cadentia sidera somnos.

* Or we may suppose these allusions in the play purposely accommodated to the time when it was represented at Athens, whether the Lenæa, Anthesterion 11, or as is more probable the Dionysia, Elaphebolion 11. Its date indeed is not known for certain: but the Schol. (v. 125) compares Pindar, Pyth. viii. 135. the date of which was B.C. 446: (cf. also ad v. 154, where he compares Nem. viii. 35.) And v. 787, he compares a verse from the Dictys of Euripides, exhibited B.C. 431 (argument of the Medea). The Ajax consequently might still be older than B.C. 425, though younger than B.C. 431. The order of ideas in the lines (670, 671)—

*Τοῦτο μὲν νιφοστιβεῖς*
*χειμῶνες ἐκχωροῦσιν εὐκάρπῳ θέρει*—

would imply that winter, not summer, was still, in the apprehension of the writer, the beginning of the year. Now any time between B.C. 431, and B.C. 425, the 11th of the calendar would not be more than the 10th of the moon: and on the 11th of the month it would actually be setting just about the time at which the action of the Ajax begins.

dar is discoverable in it; and its chief use is to throw further light on Sophocles' peculiar opinion of the time of the year, and the date, of the capture of Troy; which, as it may be inferred from this play also, must have led him to place it in the first of the summer months of the Attic calendar, that is, the month of Thargelion; and therefore we may presume on the 23rd of Thargelion.

The action of the play begins in the summer; and every allusion to external nature, which occurs in it, is characteristic of that season [b]. The sea is supposed to have been open again, all through it, and not *κατ' οἰκονομίαν*, for the sake of the fable, but in the regular course of things [c]; and that is an argument of a time in the calendar later than the Dionysia *ἐν ἄστει*, or the middle of Elaphebolion, at least. But the summer is alluded to also as already *παρεστὸς*, or arrived, before the action of the play began; and that would be a decisive intimation that it did not begin before the 6th of Thargelion, the date of the *ἀρχὴ θέρους* in the calendar of Sophocles' time. And Troy it seems was destined to be taken in the course of this very summer, thus arrived; i. e. within the two next months at least, the two summer months of the calendar, Thargelion and Skirrhophorion—

*'Ανὴρ γὰρ ἡμῖν ἐστιν ἐκ Τροίας ἁλοὺς*
*῞Ελενος ἀριστόμαντις· ὃς λέγει σαφῶς*
*ὡς δεῖ γενέσθαι ταῦτα· καὶ πρὸς τοῖσδ' ἔτι,*
*ὡς ἔστ' ἀνάγκη τοῦ παρεστῶτος θέρους*
*Τροίαν ἁλῶναι πᾶσαν* [d].

It may be collected even from the Iliad [e], that this mission to fetch Philoctetes from Lemnus, besides being an indispensable preliminary to the final reduction of the city, would be one of the last things which preceded the capture, yet not much later than the close of the Iliad itself. This play then of Sophocles might very well have been dated in the early part of Thargelion, and yet the capture of the city be supposed to have taken place before the end.

The historical date of the play is known from the argument: *'Εδιδάχθη ἐπὶ Γλαυκίππου*: i. e. B. C. 409. In that year Thargelion 1 fell May 4: the year before on May 16.

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[b] Cf. 17–19. 827–831. 859. 1081, 1082. 1339, 1340.

[c] 236–245. 343–384. 461–467. 542–627. 639–645. 722–726. 1465.

[d] 1337. cf. ad 195–200.

[e] B. 724, 725.

### vi. The Ἠλέκτρα.

The scene of this play is laid at Mykenæ[f], which is the same thing as if it had been laid at Argos; but the action itself opens a certain time after the Pythian Games, the proper calendar of which may be considered indifferently either the Delphian or the Argive.

In order then to determine this time, and its proper characters, it is first of all to be observed that the action begins in the morning at sunrise—

> *Ὡς ἡμὶν ἤδη λαμπρὸν ἡλίου σέλας*
> *ἑῷα κινεῖ φθέγματ' ὀρνίθων σαφῆ,*
> *μέλαινά τ' ἄστρων ἐκλέλοιπεν εὐφρόνη*[g]—

and though there is an allusion here to the stars, there is none to the moon. We have again an allusion to the night—

> *Ὁπόταν δνοφερὰ νὺξ ὑπολειφθῇ*[h]—

and again to the stars, or to the morning—

> *Ἔς τ' ἂν παμφεγγεῖς ἄστρων*
> *ῥιπὰς, λεύσσω δὲ τόδ' ἦμαρ*[i]—

but still none to the moon.

It is implied therefore in this omission that the action of the play, beginning some time after the stated date of the Pythian Games, must have been beginning also at the period of the silent moon; that period of the lunar synodic month when there is no visible moon, neither in the evening after sunset, nor in the morning before sunrise. The date of the Pythian Games, and the history of the institution itself, and of the rule by which it was regulated, may possibly occupy our time and attention hereafter. All that we need to say about it at present is, that the original date of these games was the Luna Septima; and if we may only assume that this was known to Sophocles, nothing is easier than to shew that the action of this play of his, the Electra, at a certain distance of time from the beginning of the Pythian Games, under the circumstances of the case, must have been intended and supposed by him to have opened at or about the luna $26^a$ or $27^a$.

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[f] Ver. 1–9.

[g] 17 cf. 86–109: 405–425: 480, 481: 634–647 of the dream of Clytemnestra the night before.

[h] 91.

[i] 105.

For, in the first place, the Pythian *feriæ*, according to their original constitution, appear to have been seven in number; and even in the time of Sophocles they were probably as numerous as the Olympian, five or six. In the next place, the death of Orestes at these games certainly was not supposed to have happened on the first day; and if it was not supposed to have happened at the beginning, we are at liberty to assume that it might not have happened until near the end. All that Sophocles himself has specified concerning it is, that it happened on the day of the chariot races—

*Κεῖνος γὰρ ἄλλης ἡμέρας, ὅθ' ἱππικῶν*
*ἦν ἡλίου τέλλοντος ὠκύπους ἀγὼν,*
*εἰσῆλθε πολλῶν ἁρματηλατῶν μέτα*[k].

And in the Olympic Games, as we hope to see hereafter, these came late in the order of the contests; and the same was probably the case in the Pythian. Let us suppose then that the death actually happened on the sixth of the Pythian Feriæ, of this æra or epoch. The lunar date of the first of these Feriæ being the Luna septima, that of the sixth would be the Luna duodecima. If this was the day of the death of Orestes, his funeral rites might be assumed to have begun this day too: but they could not be supposed to have been completed in less than nine days. For the funeral ceremonies of the ancient Greeks, the *ἔνατα* of classical antiquity, comprehended a period of nine days at least *. If these then were supposed to have begun in this instance only on the Luna $12^a$, it could not have been supposed they were over before the Luna $21^a$. And this funeral ceremony having been performed at Delphi, and the play of the Electra opening at Mykenæ, we have next to take into account the distance from Delphi to Mykenæ, and how long it would require to travel from the former to the latter, so that the bearers of the urn, which contained, or was supposed to contain, the ashes of Orestes[l], having set out with it from Delphi, as soon as his funeral rites were completed, should arrive at Mykenæ on the morning of the opening of the play. Now this distance was not less than 90 Roman miles direct, nor than 100 Roman miles by road; and that could not be estimated at less than five or six days' journey, especially for those who were carrying a burden, like the urn of Orestes. It follows then that, if these bearers of the urn of Orestes could not have set out from Delphi before the Luna 21, they could not have arrived at Mykenæ before the Luna 26 or 27, i.e. before the first of those days in every two successive lunar months, which constituted in the opinion and idiom of antiquity the period of the silent moon[m]; viz. the three last days of one month and the three first days of the next. The action of the Electra therefore must necessarily be supposed to have opened on or about the 27ª Luna; i.e. on or about the beginning of the silent moon. No allusion to the moon consequently could possibly have occurred in it, if it began and ended on one day. And none *de facto* is found in it; though both the night, and the dark, and the stars, as we have seen, are more than once alluded to.

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* Compare the Apostolical Constitutions, viii. 42. 370 E. De Mortuis. *Ἐπιτελείσθω δὲ τρίτα τῶν κεκοιμημένων . . . καὶ ἔννατα . . . καὶ τεσσαρακοστὰ . . . . καὶ ἐνιαύσια.*

[k] Ver. 698.

[l] 757–763.

The principal use of this play then is not to illustrate the calendar of the time being, so much as the original Pythian date; which it must now be admitted to do in a very striking manner. The proper Pythian month too was one of those of summer (the Julian August or September); and the allusions to natural objects which occur in this play are such as would suit this season of the year, with one exception only, that of the flowers supposed to have been found on the morning of this day also on the tomb of Agamemnon—

*'Επεὶ γὰρ ἦλθον πατρὸς ἀρχαῖον τάφον,*
*ὁρῶ κολώνης ἐξ ἄκρας νεορρύτους*
*πηγὰς γάλακτος, καὶ περιστεφῆ κύκλῳ*
*πάντων ὅσ' ἐστὶν ἀνθέων θήκην πατρός*[n].

Flowers, in such a climate as that of Greece, could not have been found in abundance later than the month Munychion[o]. But this characteristic of the time need not be too strictly construed. It might have been imagined purely *κατ' οἰκονομίαν*; or the poet might have been thinking of the season of the year at which the play was to be acted, (the natural season of flowers for the climate of Greece, Anthesterion or Elaphebolion,) not of that to which its action was adapted, the season of the Pythian Games, the end of summer, or the beginning of autumn.

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[m] Cf. our Fasti Catholici, ii. 501 *n.* Origg. Kal. Italicæ, i. 241 *n*: ii. 283. also supra, 511.

[n] Ver. 893.

[o] See vol. i. 106.

We may infer too, from the testimony of this play, that Sophocles either did not know of, or did not attach any credit to, the traditionary date of the day of the death of Ægisthus and Clytemnestra, as the same with that of the murder of Agamemnon. Electra at least clearly distinguishes the day of his death from the day on which the action opened (which was also the day of *their* death).

> Ἡ δ' .. .. .. ..
> εὑροῦσ' ἐκείνην ἡμέραν ἐν ᾗ τότε
> πατέρα τὸν ἀμὸν ἐκ δόλου κατέκτανεν,
> ταύτῃ χοροὺς ἵστησι, καὶ μηλοσφαγεῖ
> θεοῖσιν ἔμμην' ἱρὰ τοῖς σωτηρίοις[p].

The historical date of this play is unknown. The Scholiast, in one instance[q], observes, Καὶ ταῦτα Ἀριστοφάνης παρῴδηκεν ἐν Γηρυτάδῃ, and the Γηρυτάδης, according to Mr. Clinton, was not acted before B. C. 399; and in another[r] he compares Pindar[s]—

> Ἐπεὶ
> ῥέζοντά τι καὶ παθεῖν ἔοικεν.

But neither of these coincidences proves any thing of its actual date.

## vii. The Τραχίνιαι.

The scene of this drama is laid in the country of Trachis or Melia; a part of Thessaly. Its chronology therefore must be referred to the Thessalian calendar; and it appears to us to have been so contrived as to illustrate this calendar in a remarkable manner.

The action begins a certain length of time after the departure of Hercules on the last of his labours: and as the duration of this absence, and the manner in which it is described, are the points which are principally to be attended to, in order to perceive and appreciate the reference to the calendar in question, we must begin with collecting the allusions to them.

[p] Ver. 275. [q] Ad 289. [r] 1026. [s] Nemea, iv. 51.

i. This absence is represented in general terms as a period of fifteen months—

> *Χρόνον γὰρ οὐχὶ βαιὸν ἀλλ᾽ ἤδη δέκα*
> *μῆνας πρὸς ἄλλοις πέντ᾽ ἀκήρυκτος μένει*[t].

ii. These months were made up of *one* year properly so called, and three months of another—

> *Χρόνον προτάξας ὡς, τρίμηνον ἡνίκα*
> *χώρας ἀπείη κἀνιαύσιος βεβώς,*[v] *κ̀, τ. λ.*

And *this* year, in one instance, is called ἁπλῶς, a *full year*, in another an *entire twelvemonth.*

> *Κεῖνος δὲ πραθεὶς Ὀμφάλῃ τῇ βαρβάρῳ*
> *ἐνιαυτὸν ἐξέπλησεν, ὡς αὐτὸς λέγει*[x]—

> *Ὃν ἀπόπτολιν εἴχομεν,*
> *παντᾶ δυοκαιδεκάμηνον ἀμμένουσαι*
> *χρόνον, πελάγιον ἴδριες οὐδέν*[y].

For *πελάγιον* here means "beyond seas:" and the twelve months, for which he is supposed, in this second allusion, to have been detained beyond seas, are the *full* year, which he is supposed in the former to have spent with Omphale.

iii. This year, in another allusion to it, is called specifically a *seed-time*—

> *Τὸν μὲν παρελθόντ᾽ ἄροτον ἐν μήκει χρόνου*
> *Λυδῇ γυναικί φασί νιν λάτριν πονεῖν*[z].

*Ἄροτος* is no doubt used here for the year* *per synecdochen ;* a part of a certain whole for the whole itself†. But on the same principle so might harvest have been put for the year; and the question may well be raised why the last year should be spoken of as the last *ἄροτος*—and not the last harvest—if the end of the year, properly so called, and seed-time, not harvest-time, did not actually coincide *. The same meta-

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* Hesychius, *ἀρότους· ἐνιαυτούς. Σοφοκλῆς Τραχινίαις.*

† The scholiast explains this use of *ἄροτος* on the principle that there is only one *ἄροτος* in the year: *Ἅπαξ γὰρ τοῦ ἔτους ἀροτριᾶται ἡ γῆ—Ἀπὸ τοῦ ἅπαξ κατ᾽ ἐνιαυτὸν ἀροῦν.* The proper sense of *ἅπαξ* indeed is, *once for all,* as in the following passages:

> *Ἐμοὶ δὲ μήτηρ οὐχ ἅπαξ μόνον Θέμις.*
> Æschines, Prom. Desm. 209.

> *Ἅπαξ τὰ τοιαῦτ᾽ οὐχὶ δὶς χρῄζω κλύειν.*
> Œdip. Col. 1208. cf. 1419.

> *Ὃς οὐκ ἂν εἵλετ᾽ εἰσάπαξ εἰπεῖν ὅπου*
> *μηδεὶς ἐῴη.* Philoctetes, 443.

[t] Ver. 44. [v] 164. [x] 252. [y] 647. [z] 69.

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*Ἀρχὴν κλύειν ἂν οὐδ' ἅπαξ ἐβουλόμην.*
Ibid. 1239. cf. 122.

*Ὡς τρὶς ἂν παρ' ἀσπίδα*
*στῆναι θέλοιμ' ἂν μᾶλλον ἢ τεκεῖν ἅπαξ.*
Medea, 250.

*Χρη γὰρ οὐχ ἅπαξ*
*θνήσκειν σε.* Heraclidæ, 959.

*Καὶ μὴν ἔπεμψ' ἐπ' αὐτὸν οὐχ ἅπαξ μόνον.*
Andromache, 81. cf. 943.

But so is there only one *ἄμητος*: so that on the very same principle we might just as well have expected the year to have been called an *ἄμητος*.

* With this use of *ἄροτος*, ploughing-time or seed-time, in the sense of a year, we may compare that of *ποία* in the sense of a year too. Rhianus, of the duration of the second Messenian war—

*Οὔρεος ἀργεννοῖο περὶ πτύχας ἐστρατόωντο*
*χείματά τε ποίας τε δύω καὶ εἴκοσι πάσας* [1].

*Μῆλον ἐγὼ στρούθειον, ἀπὸ προτέρης ἔτι ποίης,*
*ὥριον ἐν νεαρῷ χρῶτι φυλασσόμενον* [2] *κ', τ. λ.*

*Ἱππάρχου κλαίουσα κακὸν μόρον, εἴκοσι ποίας*
*μοῦνον ἐπεὶ βιότου πλήσαο καὶ πίσυρας* [3].

The Etymologicum M. explains this as if *πόα* or *ποιὰ* were used in such instances simply in the sense of *βοτάνη*—which springs up once for all every year. *Πόα ἢ βοτάνη .... ἢ ποιά ἐστιν ὁ ἐνιαυτός .... διὰ τὸ ἅπαξ καὶ μόνον ἐν τῷ ἐνιαυτῷ τὴν βοτάνην φύεσθαι.* Καλλίμαχος· *Αἴγυπτος προπάροιθεν ἐπ' ἐννέα κάρφετο ποιάς.* Cf. Suidas also, in *ποίη*. *Ὁ ἐνιαυτὸς παρὰ* Καλλιμάχῳ. *παρὰ τὸ ἅπαξ καὶ μόνον ἐν τῷ ἐνιαυτῷ τὴν βοτάνην φύεσθαι.* But this was to mistake the sense of *ποία* as so used; which is not that of the grass of the country in general, but that of the verdure of the cornfields in particular, and especially that of the barley-cornfields, the

[1] Pausanias, iv. xvii. 6.

[2] Anthologia, ii. 156. Antiphilus, Byz. viii. cf. Suidas, Ποίη.

[3] Ibid. ii. 172. Diodorus Sardianus, ix.

phor is used (in a subsequent allusion) not only of this last year of the labours of Hercules, but of all the years before—

*Ἴδ' οἷον, ὦ παῖδες, προσέμιξεν ἄφαρ*
*τοὔπος τὸ θεοπρόπον ἧμιν*

blade of which in appearance is most like to grass. In this idiomatic sense it is used by Homer [4].

*Εὐρύμαχ' εἰ γὰρ νῶιν ἔρις ἔργοιο γένοιτο*
*ὥρῃ ἐν εἰαρινῇ, ὅτε τ' ἤματα μακρὰ πέλονται,*
*ἐν ποίῃ κ', τ. λ.*

Cf. also the scholia on Theocritus [5], Ποιολογεῦσα : *Ποιὰν δὲ ἴσως τὸν πυρὸν κατ' ἐξοχὴν, ἀφ' οὗ καὶ τὸν ἐνιαυτὸν ποιὰν ἐκάλεσαν. ποιὸς γὰρ κυρίως ὁ πυρός.* In this sense it corresponded to *messis* in Latin : and messis is used in the same way, *per synecdochen*, for a year, in Latin also.

Smyrna mei Cinnæ nonam post denique messem,
Quam cœpta est, nonamque edita post hiemem [6].

And by Virgil, the word aristas also—

En unquam patrios longo post tempore fines,
Pauperis et tugurï congestum cespite culmen,
Post aliquot mea regna videns mirabor aristas [7]?

On which Servius ; Gradatim dictum ; ... ut per aristas messes, per messes æstates, per æstates annos numeret.

And Claudian in particular has used even gramen in Latin in this sense of the Greek *ποία.*

Et prope ter senas Itali per graminis herbas
Massylus Pœno sonipes vastante cucurrit [8].

With respect to the fact relating to Egypt, and the non-ascent of the Nile, referred to in the quotation from Callimachus, supra, it is alluded to by Seneca also [9]—Per novem annos non ascendisse Nilum superioribus seculis Callimachus est auctor.

And by Ovid [10]—

Dicitur Ægyptos caruisse juvantibus arva
Imbribus atque annos sicca fuisse novem.

And, as it would seem, from 649–652 of the Ars Amandi, and the Ibis, 397, in the time of Busiris. Cf. Hyginus, Fabb. lvi. Busiris : Apollodori Bibliotheca, ii. 5. § 11 : Josephus, Contra Apion. i. 34 : Virgil, Georgica, iii. 5, and Philargyrius, *in loc.* The foundation of this tradition in all probability was the preternatural famine of seven years, in the time of the Patriarch Joseph.

[4] Od. Σ. 365.

[5] Idyll. iii. 32.

[6] Catullus, xcv. cf. Horace, De Arte Poëtica, 388.

[7] Ecloga i. 68. 1.

[8] xxvi. De Bello Getico, 147.

[9] Opp. v. 240. Nat. Quæst. iv. ii. 15.

[10] De Arte Amandi, i. 647.

τᾶς παλαιφάτου προνοίας,  
ὅ τ' ἔλακεν, ὁπότε τελεόμηνος ἐκφέροι  
δωδέκατος ἄροτος, ἀναδοχὰν τελεῖν πόνων  
τῷ Διὸς αὐτόπαιδι· καὶ ταδ' ὀρθῶς  
ἔμπεδα κατουρίζει[a].

The labours of Hercules were twelve in number; and it is clearly implied in this allusion that there had been one labour for every year, in twelve successive years; each of which is called an ἄροτος, and the last of them, after which there was to be no more, an ἄροτος τελεόμηνος—a year which had brought its own months and the accompanying labours of Hercules to a consummation both together.

Lastly, the termination of this period of the absence of Hercules, thus divisible into one year of twelve months, and three months of another, coincided with the time when the action of the play began—

Καὶ τῶνδε ναμέρτεια συμβαίνει χρόνου  
τοῦ νῦν παρόντος, ὡς τελεσθῆναι χρεών[b].

And this time, it further appears, was the time of spring. The messenger, who brings Deïanira the news of the arrival of Lichas, describes him as detained on the way by the curiosity of the people of Melis, in a meadow, to which he applies the epithet of βουθερής—

᾿Εν βουθερεῖ λειμῶνι πρὸς πολλοὺς θροεῖ  
Λίχας ὁ κῆρυξ ταῦτα[c].

And this epithet the scholiast explains to mean either (τῷ) μέγα θέρος ἔχοντι, ὅ ἐστι λήϊον. τὸ γὰρ βου ἐπιτατικόν ἐστιν· ἢ τῷ σφόδρα βαλλομένῳ καὶ καταθερομένῳ, ἤγουν θερμαινομένῳ, ὑπὸ τοῦ ἡλίου. ... ἢ ὑπὸ βοῶν θεριζομένῳ τοῖς ὀδοῦσι, τοῦτ' ἐστι βοῦς τρέφοντι. This last is probably the true explanation of its meaning: but any of them would prove that the time of the year must have been the spring.

The historical date of this play is unknown: but in this circumstance, of recognising the proper beginning of the year as the winter solstice, at no period of the life-time of Sophocles could its allusions have been inapposite to the Thessalian calendar in particular—the proper date of which was Jan. 2 in the Julian year. Nor could it be later than Jan. 5; and it might be as early as Dec. 10; and possibly was so in the year to which the play was adapted: on which principle the last month in this calendar that year, and the last seed month, would have been coincident. In like manner the third month the same year would end, and the fourth would begin, March 8: and the action of the play—beginning exactly at this time according to its own intimations, yet in the acme of spring according to its own intimations also—would begin *de facto* with the second, or middle, month of the three months of spring.

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[a] Ver. 821. [b] 173. [c] 188.

### SECTION III.—*Testimony of the Plays of Euripides.*

The first appearance of Euripides on the tragic stage is dated, by the author of the Vita[d], Ol. 81 in the year of Callias, when he gained the third prize with his Πελιάδες[e]. According to the rectified scheme of the archontic tables, Callias entered Gamelion 1 B. C. 455, Ol. lxxxi. 1; and Euripides was then 24 years of age complete; though the Vita makes him 26, and Thomas Magister 25. He gained the first prize for the first time in the year of Diphilus[f], which entered Gamelion 1, B. C. 441; and he was then 38 years old complete; though the Parian chronicle makes him 43[g].

The period then, for which he was writing, comes between B. C. 455 and B. C. 405; and during the greater part of this time the old Octaëteric calendar must still have been in use even at Athens: much more in the rest of Greece. The scene of his exstant plays is laid in various quarters; and in two instances only in Attica. It may be supposed therefore *a priori* that they are likely to illustrate the other varieties of the Greek calendar, more than the Attic; but what kind of service they may actually render for that purpose can be discovered only from a careful examination of them. To this therefore we shall proceed, but with as much brevity as may be practicable; taking these too, as we have done those of Sophocles, in the order in which they are commonly edited.

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[d] Apud Elmsleium.

[e] Cf. Ælian, Varr. ii. 13.

[f] Ibid. ii. 13.

[g] Epocha lxi.

### i. The Ἑκάβη.

The scene of this drama is laid in the Thracian Chersonese, over against the coast of Troy: and the Thracian calendar, (if it may be supposed that Euripides would pay any regard to that in adjusting the chronology of his Hecuba,) as we have seen from our review of the Anabasis of Xenophon[h], was still the primitive equable one, even in Euripides' time. The action opens on the third day after the arrival of the fleet, on its return home[i], at this locality; and the capture of Troy was still a very recent event[k]. The voyage is supposed to have been stopped at this point of time by adverse winds; but evidently *κατ' οἰκονομίαν*, and to prepare the way for the proper action of the play. The usual offerings to the manes of the dead too are alluded to, at the same point of time, under the name of Χοαί[l]; which, under other circumstances, might have been an argument of the lustral month (the Attic Anthesterion), but in this instance is also to be explained *κατ' οἰκονομιαν*, as simply the consequence of the appearance of the spectre of Achilles, which had just occurred, and as a necessary accompaniment of the sacrifice of Polyxena. Sirius and Orion were both visible in the heavens at this time[m]; and that would be the case in the time of Euripides, a month after the autumnal equinox[n]: and that about a month after the autumnal equinox must have been the time of the natural year to which the chronology of this play was adapted may be inferred from a very critical distinction, which occurs in the account of the honours paid to the dead body of Polyxena[o], the mention of leaves but not of flowers; implying that the season of flowers had long been past, but that of the *φυλλορροία*, or shedding of leaves, was not yet come.

Though therefore nothing occurs in this play which illustrates any of the calendars of the time, it throws light on Euripides' opinion respecting the date of the capture of

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[h] Supra, page 260.

[i] Ver. 30–39. cf. 94: 111: 444: 903.

[k] 475–489: 905 sqq.: 1214 sqq.

[l] 535–537.

[m] 1102.

[n] Cf. vol. i. 287, 288. where it was shewn from calculation that they were both on the meridian about sunrise Sept. 16 B.C. 569, and therefore would both be so two hours before sunrise a month later.

[o] Ver. 571–574.

Troy; which, as is thus seen, must have been placed by him in the autumnal quarter of the year: and we shall see still clearer proofs of the same belief in his other plays. The winds, which begin to blow as soon as the play is over[p], though favourable to the continuation of the voyage to Greece, and therefore from the north or east—must not be confounded with the Etesian winds, the season of which had long been past, but considered as *κατ' οἰκονομίαν* also, and simply the effect of recent events, and of the satisfaction made to the manes of Achilles. The historical date of the play is unknown.

## ii. The Ὀρέστης.

The scene of this play is laid at Argos; and its chronology, it is to be presumed, must have been first and properly adapted to the Argive calendar. In order to discover the month and the day of the month, in and on which it begins and ends in that calendar, we may reason as follows.

The action commences on the sixth day from the death of Clytemnestra[q]; Orestes having been seized with his madness on the day of her burial, as he was watching for the *ὀστέων ἀναίρεσις* by night[r]. Pylades, who was present in Argos at the time of her death[s], but absent at the opening of the play, arrives again this same day[t]; and as it appears from his own account[v], comes back from his own home in Phocis, whence he had just been expelled by Strophius his father, for the part he had taken in her death: from which it will follow that he must have gone home from Argos to Phocis on the day of her death, and come back again from Phocis to Argos, on the 6th day after; a supposition which was possible indeed, though, if we consider the distance from Argos to Phocis, only just possible.

The traditionary date of the death of Agamemnon in the Argive calendar, as we have more than once had occasion to observe, was the 13th of the month. We are at liberty to assume that this was known to Euripides. We are at liberty also to assume that he was aware of the tradition, confirmed apparently by the testimony of Homer, that the date of the death of Ægisthus and Clytemnestra, in revenge for that of Agamemnon, was the 13th of the month too. And though the Homeric tradition might also seem to imply that this 13th of the month was the 13th of the same month in each instance, and therefore the 13th of the primitive Gamelion rather than that of the next month, that was a more doubtful circumstance; and Euripides might consider himself at liberty to accept the day of the month, for the date of the death of Ægisthus and Clytemnestra, but not necessarily the month: or he might find it more convenient for his purpose to suppose it the 13th of the second month than the 13th of the first.

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[p] Ver. 1289, 1290. [q] 39: 89: 422. [r] 401–404. [s] 406. [t] 719. [v] 763–767. cf. the schol. ad 753: 1226. Ed. Matthiæ.

Let us assume then that the traditionary date of the murder, recognised in this play, was the 13th of the second month of the Primitive Hellenic calendar, the 13th of the second month in the octaëteric of Euripides' time; and let us see what coincidences this assumption may bring to light. In the first place, the date of the murder having been the 13th of this second month, the day, on which the action of the play was supposed to have begun, must have been the 18th. In the next place, the play opens at a time when the usual piacular offerings to the manes of the dead (which the ancients called Χοαὶ *) were either still in course, or only just over, and not *κατ' οἰκονομίαν*, or as a consequence of the recent death of Clytemnestra, but in the regular course of things [v]. From which it follows that, if the action opened in the second month of the Argive calendar of this time, the second month in that calendar must have been the regular lustral or piacular month, and this period of the month, from the 13th to the 18th, the lustral feriæ of that month. And as both these things were true of the second month in the Attic calendar (one, that this was the proper lustral month in the Attic calendar, the other, that these were the proper lustral feriæ of that month, viz. from the 13th to the 18th or

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* Schol. ad v. 96: Χοαὶ, *αἱ χεόμεναι τοῖς νεκροῖς σπονδαί*—ad 1180: Χοαὶ *λέγονται ἐπὶ τῶν νεκρῶν*—ad 1307: Χοὰς, *ἃς ἔθος τοῖς νεκροῖς πέμπεσθαι.* Cf. our Origines Kal. Italicæ, i. 424 *n.*

[v] Cf. 96: 113: 124: 1187: 1321, 1322: 471, 472: 610, 611.

19th) there is no reason why they might not have been equally true of the second month in the Argive calendar. And as these lustral days in any of the calendars of antiquity may well be supposed to have been ἀποφράδες—i. e. improper for the transaction of any public business—if the first of these in the Argive calendar was the 13th of the second month, and the last was the 17th, that coincidence will explain the fact which is also supposed in the play, that, though the death of Clytemnestra took place on the 13th, Orestes and Pylades could not be brought to a trial in the public assembly of the Argives, for the part they had taken in it, on a proper day, before the 18th, the day on which the play begins[x], the sixth day from the commission of the crime itself.

Thirdly, the proportion of the epochs in the third type of the octaëteris, to those of the first, was such that, if the play opened on the 18th of the second month in the Argive calendar, it opened on the 28th of the second month in the Attic; and this second month in that calendar being Anthesterion, the play, on this principle, opened on the 28th of Anthesterion. It follows that the banishment of Orestes, which is enjoined by Apollo this day, and must be supposed to have begun this day, would be supposed to have begun on the 28th of Anthesterion; and being enjoined for neither more nor less than a year, if it began on the 28th of Anthesterion it would come to an end on the 27th: and as it was to be followed as soon as it was over by his trial at Athens, if this year of preliminary banishment ended on the 27th, the trial would take place on the 28th.

> Σὲ δ' αὖ χρεὼν,
> Ὀρέστα, γαίας τῆσδ' ὑπερβαλόνθ' ὅρους,
> Παρράσιον οἰκεῖν δάπεδον ἐνιαυτοῦ κύκλον—
> Ἐνθένδε δ' ἐλθὼν τὴν Ἀθηναίων πόλιν
> δίκην ὑπόσχες αἵματος μητροκτόνου
> Εὐμενίσι τρισσαῖς[y].

And herein we may observe the following coincidence. His trial at Athens at last was destined to take place before the court of Areopagus; and yet there were three days only on which such cases as this of Orestes, belonging to the class of

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[x] Ver. 48-51: 612-614: 866-945. cf. 440.

[y] 1643 sqq.

*φονικαὶ δίκαι*, could come before that court. But these three were the 27th, the 28th, and the 29th of every month[z]; and Euripides we see has so contrived the plan and ordered the chronology of this play of his, that, as the event of all, the trial of Orestes, by the court of Areopagus at last, should coincide with the second of the three days on which, and which alone, in any month of the calendar at Athens, such a trial could be supposed to have come before it.

With regard to the historical date of the play, it is of no importance to the determination of its chronology in these other respects; but it appears from the Scholia that it was the year of Diocles, B. C. 409–408. *Πρὸ γὰρ Διοκλέους ἐφ' οὗ τὸν 'Ορέστην ἐδίδαξε, Λακεδαιμονίων πρεσβευσαμένων περὶ εἰρήνης, ἀπιστήσαντες 'Αθηναῖοι οὐ προσήκαντο ἐπὶ ἄρχοντος Θεοπόμπου, ὃς ἦν πρὸ Διοκλέους, ὡς ἱστορεῖ Φιλόχορος, κ`, τ. λ*[a]—*Εἰς Κλεοφῶντα ταῦτα αἰνίττεται, πρὸ ἐτῶν δύο ἐμποδίσαντα ταῖς σπονδαῖς*[b] —*Μήποτε δὲ εἰς Κλεοφῶντα*[b]· *πρὸ ἐτῶν γὰρ δύο τῆς διδασκαλίας τοῦ 'Ορέστου αὐτός ἐστιν ὁ κωλύσας σπονδὰς γενέσθαι 'Αθηναίοις πρὸς Λακεδαιμονίους, ὡς Φιλόχορος ἱστορεῖ*[c]. The date is thus fixed to B. C. 408, either to the Lenæa or to the Dionysia that year. We may conclude with observing that the well known line of this play—

*'Εκ κυμάτων γὰρ αὖθις αὖ γαλήν' ὁρῶ*[d]—

was parodied in the Ranæ[e] of Aristophanes at the Lenæa, B. C. 405.

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## iii. The *Φοίνισσαι*.

The scene of this play is laid at Thebes. The action is opened with the arrival of the Seven before it: from which we may infer the season of the year and the Bœotian month in which it opens, as follows:

Tradition having always connected the foundation of the Nemean games with the first expedition against Thebes, if Euripides did not purposely disregard this tradition, the necessity of the case would oblige him to date the arrival of the Seven on this occasion in the Nemean month. The Nemean month was twofold; that of the spring Nemea, the

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[z] See vol. i. 59 note.

[a] Ver. 361.

[b] 760.

[c] Cf. ad 891 also.

[d] 279.

[e] Ver. 304. Cf. the Schol. in Orestem, 269: ad Ranas in loc.

*fifth* in the Argive calendar, and that of the summer, the *ninth.* Of these the latter would have been too late for an expedition of this kind: Euripides consequently has laid the scene of his Phœnissæ in the former. This fifth Argive month and the fifth Bœotian one would correspond to one another; only that the first of the former would be the sixth of the latter. If Euripides then, like Statius, (as we shall see hereafter,) assumed the celebration of the first Nemea on the 13th of the proper month, and dated the arrival of the chiefs before the city only two days afterwards; on this supposition he must have opened his Phœnissæ on the 15th of the fifth Argive month, and the 21st of the fifth Bœotian, the name of which, we have seen reason to conclude, was Καρεῖος[f].

There is no allusion in the play to the moon, which might have served to test the truth of this conclusion; but it may be shewn to be consistent with its internal evidence in other respects.

i. The action of the drama could not have opened earlier than the beginning of the year at Thebes at least. It is supposed, preliminary to it, that Eteocles and Polynikes having agreed between themselves to reign for a year by turns, the former at the end of his year refused to resign the sceptre.

> Ἐτεοκλέα δὲ σκῆπτρ᾽ ἔχειν μένοντα γῆς
> ἐνιαυτὸν ἀλλάσσοντ᾽. ἐπεὶ δ᾽ ἐπὶ ζυγοῖς
> καθέζετ᾽ ἀρχῆς, οὐ μεθίσταται θρόνων[g].

The play then could not have begun earlier than the beginning of the second year after this engagement was entered into. But the state of the case at the opening of this play, and before it, is precisely the same as that which was supposed in the Thebaïs of Statius[h]; according to which Polynikes had been an exile, and Eteocles had been reigning, the whole of *one* year, Tydeus was sent, to demand of Eteocles the fulfilment of his part of the engagement, at the beginning of the *next*, and the expedition, which was intended to resent the breach of this engagement, took place at the beginning of the *third*: all these years too being dated alike from the first of the spring months in the natural year, the second of the civil months in the Bœotian.

ii. The allusions, which occur in the play, to external nature, are characteristic of spring; the meadows being covered with verdure[i], and the nightingale being in full song[k]; the latter of which, as we may some time or other have occasion to shew, would have been a criterion of the Attic Munychion or Thargelion.

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[f] Supra, 307. 310.

[g] Ver. 73.

[h] Supra, 336.

iii. This play of Euripides, though devoted to the same subject as the Septem contra Thebas of Æschylus, did not take its name from the Seven like that, but from the persons who composed its chorus: and these were a company of *Φοίνισσαι*, Phœnician or Tyrian virgins, who, having been dedicated to the service of the Delphian Apollo, and sent for that purpose from Tyre, are supposed to have been passing through Thebes on their way to the temple, when the Seven arrived before it. Let us hear then what account they themselves give of their mission and journey—

*Τύριον οἶδμα λιποῦσ᾽ ἔβαν*
*ἀκροθίνια Λοξίᾳ*
*Φοινίσσας ἀπὸ νάσου*
*Φοίβῳ δοῦλα μελάθρων,*
*ἵν᾽ ὑπὸ δειράσι νιφοβόλοις*
*Παρνασοῦ κατενάσθη,*
*Ἰόνιον κατὰ πόντον ἐλά-*
*τᾳ πλεύσασα, περιρρύτων*
*ὑπὲρ ἀκαρπίστων πεδίων*
*Σικελίας Ζεφύρου πνοαῖς*
*ἱππεύσαντος ἐν οὐρανῷ*
*κάλλιστον κελάδημα*[l].

The commentary of the Scholiast on this passage shews that he did not clearly comprehend its meaning: *Διαποροῦσι πῶς λέγουσιν αἱ κατὰ τὸν χορὸν, ἀπὸ Φοινίκης εἰς Δελφοὺς πλεύσασαι, κατὰ τὸν Ἰόνιον πόντον καὶ Σικελίαν γεγονέναι, καὶ ταῦτα Ζεφύρου πνεύσαντος καὶ ἐναντιουμένου τῷ πλῷ.* But though the course here described, from Tyre to Thebes, must necessarily have taken these virgins across the sea of Ionia, the sea over against Tyre; it was not the direction of the voyage, nor the wind which must have been instrumental towards it, which was here intended, but simply the time of the year when it had been made, as not earlier than the earliest date of the opening of the sea, that of the *Ζεφύρου πνοὴ*, or Flatus Favonii[m]. And further on, even the Scholiast seems to have caught a glimpse of the true meaning of the description: *Ἢ καὶ πνεύσαντος ἤδη τοῦ Ζεφύρου καὶ πεπαυμένου, ὅτε γαληνὸν ἦν τὸ πέλαγος, ἐν ὥρᾳ εἰαρινῇ. ὁ δὲ Κράτης φησὶν αὐτὰς δηλοῦν τὴν ὥραν καθ' ἣν ἐκομίσθησαν εἰς τὴν Ἑλλάδα, τὴν μετὰ Ζεφύρου πνοὰς, τοῦ φαινομένου κατὰ τὸν Ἰόνιον κόλπον. σημαίνει οὖν τὸν ἐαρινὸν καιρόν.* There can be no doubt that this is the right explanation of the passage. The rest of its allusions are merely ornamental, and not more literally to be understood here than in Horace's imitation of them—

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[i] Ver. 1570.

[k] 1514–1518.

[l] Ver. 202. cf. 283–285: also Iphigenia in Tauris, 419, 420.

> Ceu flamma per tædas, vel Eurus
> Per Siculas equitavit undas[n].

We must first then take into account the time of the year when the sea was considered to have again become open, after the winter, for such voyages as these, i. e. not earlier than the Attic Dionysia *ἐν ἄστει*, the middle of Elaphebolion; and secondly, the length of time which it might be supposed must have been taken up by a voyage and a journey like this, from Tyre to the coast of Greece, and from thence to Thebes, on the way to Delphi—not less than a month or six weeks. It is easy to see, under such circumstances, that the arrival of these virgins at Thebes could scarcely have been supposed earlier than the beginning of Thargelion; and that being the Nemean month in the Attic calendar, as the fifth was in the Argive, or the Bœotian, their arrival about the beginning of this month must have been speedily followed by that of the Seven about the middle of it, with which the action of this play also opens.

The date of the play is uncertain; nor is it of much importance to the preceding considerations, and to the conclusion derived from them. From the Scholia on the Ranæ it might be inferred that it was but a little older than that play; at least that it must have come some time between B.C. 405, the date of the Ranæ, and B.C. 413, that of the Andromeda: *Διὰ τί δὲ μὴ ἄλλο τι τῶν πρὸ ὀλίγου διδαχθέντων καὶ καλῶν, Ὑψιπύλης, Φοινισσῶν, Ἀντιόπης; ἡ δὲ Ἀνδρομέδα ὀγδόῳ ἔτει προῆκται*[o]. Nor had the Phœnissæ yet appeared by the year of the Aves[p], B. C. 414. It is quoted in the Alkibiades II^us of

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[m] See supra, 275 sqq.

[n] Od. iv. iv. 43.

[o] Ad Ranas, 53.

[p] Schol. ad Aves, 347.

Plato[q]; the date of which is supposed to have been that of the trial after Arginussæ[r], B. C. 407. According to the Scholiast on the play itself[s], it was much older than B. C. 403, the archontic year of Euclides: *Γέγονε δὲ περὶ τὴν ἀρχαίαν γραφὴν ἁμάρτημα. ἐπ' ἄρχοντος γὰρ Ἀθήνῃσιν Εὐκλείδου μήπω τῶν μακρῶν εὑρημένων, τοῖς βραχέσιν ἀντὶ μακρῶν ἐχρῶντο, τῷ ε ἀντὶ τοῦ η, καὶ τῷ ο ἀντὶ τοῦ ω.* In his opinion too it was older than the Antigone and the Œdipus Colonëus of Sophocles[t]. And it must have been older than the latter; but it could not have been older than the former, the date of which was B. C. 440.

### iv. The *Μήδεια.*

The scene of this drama is laid at Corinth; but nothing is met with in it calculated to throw light on its chronology, except the dialogue of Medea and Ægeus[x]: from which it appears that Ægeus was returning to Trœzen, after having been at Delphi, consulting the oracle, on the day on which it opens. In this case, he must have been at Delphi on the 7th of Busius; and the distance from thence to Corinth having been three or four days' journey, he could not have arrived at Corinth before the 11th of Busius, or the 11th of the second month at Corinth, which corresponded to it.

It appears from the argument of this play, that it was exhibited, along with the Philoctetes, the Dictys, and the *Θερισταὶ Σάτυροι, ἐπὶ Πυθοδώρου,* B. C. 431 *. Some of the ancients questioned the claim of Euripides to its first authorship, which they attributed to Neophren, or Neophron, of Sikyon, instead of him[y]; whom Suidas represents as a contemporary of Alexander the Great, and as put to death by him along with Callisthenes[z]. In this case he must have been much younger than Euripides; and Neophron, the re-

* Cf. the Acharn. of Aristophanes, v. 119: the Pax, 1012: the Thesmoph. 1141; and the Scholia in locos.

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[q] Opp. i. Pars ii. 298 7: cf. Phœn. 858, 859.

[r] Ibid. 279. 10–20: cf. however 279. 3, an allusion to the death of Archelaus, king of Macedonia; which certainly had not happened B. C. 407.

[s] Cf. ad ver. 682.

[t] Cf. ad ver. 1710.

[x] Ver. 663 sqq.

[y] Argumentum of the Medea.

[z] Suidas, *Νεοφρῶν.*

puted author of the Medea, imitated by this of Euripides, (if it was really such an imitation,) must have been an older person of the same name[z]. Athenæus has mentioned[a] that both the Medea and the Œdipus Rex were indebted for their *μέλη* (their music or choral arrangements) to the *Γραμματικὴ* of Callias; a tragi-comic representation, in which the letters of the alphabet played the part of *ὑποκριταί*. Euripides too is said to have derived from the same play of Callias the idea which appeared in his Theseus, of rendering the name of Theseus intelligible, by describing the *figures* of the characters of which it was composed in the Greek[b].

It is mentioned too by the Scholiast on the play[c], that Euripides was said to have written it to oblige the Corinthians, by diverting from them to Medea the odium of the murder of the children of Jason, which common fame represented as their act: *Πολυάϊκός τις λόγος φέρεται τῶν φιλοσόφων, ὃν καὶ Παρμενίσκος ἐκτίθησιν, ὡς ἄρα πέντε τάλαντα λαβὼν παρὰ Κορινθίων Εὐριπίδης μεταγάγοι τὴν σφαγὴν τῶν παίδων ἐπὶ τὴν Μήδειαν*[d]. This story would have been entitled to little credit at any time, much more of such a time as B. C. 431, when the political relations of the Athenians and the Corinthians were those of open and decided antipathy, and had been since B. C. 433, in which year the Athenians first took part in their quarrel with the Corcyreans.

### v. The Ἱππόλυτος.

The scene of this play is laid at Trœzen[e]: and though we know nothing of the calendar of that place for certain, there is reason to believe that it agreed with that of the Peloponnese in general; derivable from the epoch of Jan. 7, B. C. 512.

The first remark which may be made on the action of this play is that Theseus is supposed to have retired to Trœzen from Athens into a voluntary banishment for the term of a year, as an atonement for the death of the Pallantidæ[f]—

> *Ἐπεὶ δὲ Θησεὺς Κεκροπίαν λείπει χθόνα,*
> *μίασμα φεύγων αἵματος Παλλαντιδῶν,*

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[z] See Mr. Clinton, F. Hell. tom ii. xxxi.

[a] vii. 1: x. 79.

[b] x. 80.

[c] Ad ver. 10.

[d] Cf. ad ver. 276. where the passage from Parmeniscus itself is given.

[e] Ver. 10. 34 sqq.

[f] Cf. Plutarch, Theseus, iii. xiii.: Apollodorus, Bibl. iii. xv. 5.

καὶ τήνδε σὺν δάμαρτι ναυστολεῖ χθόνα,
ἐνιαυσίαν ἔκδημον αἰνέσας φυγὴν,
ἐνταῦθα δὴ[g] κ', τ. λ.

The next is that though absent at the opening of the action, he returns the same day, before it is over; and it appears comes back from Delphi, where he had been to consult the oracle[h]—

Αἰαῖ· τί δῆτα τοῖσδ' ἀνέστεμμαι κάρα
πλεκτοῖσι φύλλοις, δυστυχὴς θεωρὸς ὤν[i];

on which the Scholiast[k]: Ἔθος γὰρ εἶχον οἱ ἀρχαῖοι τοῦτο, ὅτε ἤρχοντο ἀπὸ μαντείας ἐστεφανωμένοι ἤρχοντο, καὶ πάντες τοῦ οἴκου προσεκύνουν αὐτούς[l].

It follows that Theseus must have gone to Delphi from Trœzen before the 7th of Busius, and have come back again to Trœzen from Delphi after the 7th: and the distance not having been less than six days' journey, we must suppose that he left Trœzen to go to Delphi on the *first* of Busius, and returned to Trœzen from Delphi on the *thirteenth*. The year's exile then, which had begun before this visit, must have begun before the first of Busius; and if it began before the first of Busius in the Delphian calendar, it must have begun in Gamelion in the Attic calendar. And this coincidence will explain the term of the exile itself; a year (as was naturally to be expected *a priori*) by the Attic calendar, from the first of Gamelion in one year to the first of Gamelion in the next.

The action opens on the third day of the illness of Phædra.

Τριτάταν δέ νιν κλύω
τάνδε κατ' ἀμβροσίου
στόματος ἁμέραν[m] κ', τ. λ.

And if it begins on the 13th of Busius this illness must have begun on the 11th. And Busius in the Delphian having corresponded to Anthesterion in the Attic calendar, and each having been the first of the spring months as such, this coincidence explains a variety of allusions to external nature, which occur in the play[n]; but more particularly the well known description of the garland, composed of flowers newly culled on this day upon which the action opens, after the day's hunting was over, and dedicated by Hippolytus to Artemis.

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[g] Ver. 34. cf. Suidas, Ἀπενιαυτίσαι.

[h] Cf. the Scholia ad 280. Ἔκδημος. εἰς Πυθίαν ἦν θεωρός.

[i] v. 806. cf. 659, 660.

[k] Ad v. 786.

[l] Cf. ad Orestem, 373: also Sophocles, Œdipus Rex, supra, 545.

[m] 135. cf. ad 275.

[n] Ad v. 17: 209–227: 1137, 1138.

> Σοὶ τόνδε πλεκτὸν στέφανον ἐξ ἀκηράτου
> λειμῶνος, ὦ δέσποινα, κοσμήσας φέρω,
> ἔνθ' οὔτε ποιμὴν ἀξιοῖ φέρβειν βοτὰ,
> οὔτ' ἦλθέ πω σίδηρος, ἀλλ' ἀκήρατον
> μέλισσα λειμῶν' ἠρινὸν διέρχεται·
> αἰδὼς δὲ ποταμίαισι κηπεύει δρόσοις [o].

It is implied hereby that though no shepherd presumed to tend his flocks in this sacred enclosure, they were feeding them in other fields and pastures at this very time: while as to the bee, which alone was privileged to roam at large in it, Aristotle told us [p] it resumed its labours in the open air forty days after the solstice of winter; which never could be later than the 13th of Busius in the Delphian calendar, the 23d of Anthesterion in the Attic.

The date of the Hippolytus is ascertained by the argument: Ἐδιδάχθη ἐπὶ Ἐπαμείνονος ἄρχοντος Ὀλυμπιάδι ὀγδοηκοστῇ ἑβδόμῃ ἔτει τετάρτῳ. πρῶτος Εὐριπίδης, κ`, τ. λ. This archon, in the rectified scheme of the Tables, entered Gamelion 1, B. C. 428, Ol. 87. 4 [q]. The date is virtually confirmed by the Scholiast, where he is noticing a supposed anachronism in the line

> Πώλους Ἐνέτας δαμαλιζομένα [r].

Ταῦτα ἀνακεχρόνισται· οὐδέπω γὰρ Ἕλληνες Ἐνέταις ἐχρῶντο ἵπποις . . . Λέων δὲ πρῶτος Λακεδαιμόνιος πθ' Ὀλυμπιάδι ἐνίκησεν Ἐνέταις ἵπποις, ὡς Πολέμων ἱστορεῖ, καὶ ἐπέγραψε τῇ εἰκόνι, Λέων Λακεδαιμόνιος, ἵπποισι νικῶν Ἐνέταις, Ἀντικλείδα πατήρ. Eustathius dates this victory Ol. 85 [s]. The Hippolytus is referred to in the Alkibiades 1mus of Plato [t], the date of which professes to have been just before Alkibiades attained to his twentieth year [v]—though Pericles too, who died B. C. 429, is supposed to have been still alive at the same time [x], and Agis

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[o] Ver. 73.

[p] Vol. i. 156.

[q] Cf. Aristoph. Equites, 16. Hippolyt. 346: Equites, 1287. Hipp. 375. Vespæ, 749. Hipp. 230: Thesmoph. 283. Ranas, 102. Hipp. 612: and the Schol. in loc.

[r] v. 231.

[s] Il. B. 852. 361. 25.

[t] ii. iii. 321. 14. cf. Hipp. v. 352.

[v] ii. iii. 302. 6. cf. the Scholia, ii. 385.

[x] Ibid. 333. 17–21: 334. 14–339. 1.

(who did not begin to reign before B.C. 427 or 426) not Archidamus to have been then king of the Spartans [y].

### vi. The Ἄλκηστις.

The scene of this play is laid in the palace of Admetus, in Thessaly. Its chronology therefore is first and properly to be referred to the Thessalian calendar: and it is calculated to illustrate that in a striking manner.

In the first place, the action opens on the first of the month.

*Δεῖ γὰρ θανεῖν με· καὶ τόδ' οὐκ ἐς αὔριον*
*οὐδ' ἐς τρίτην μοι μηνὸς ἔρχεται κακὸν,*
*ἀλλ' αὐτίκ' ἐν τοῖς οὐκέτ' οὖσι λέξομαι* [z].

The day on which the action begins is here opposed to the morrow: and that to the third of the month. If so, the action must have begun on the first of the month *.

In the next place, it opens not only on the first of the month, but, as it may also be inferred, on the first day of the year; and that year a lunar year. For first, the day on which it opens was already fixed upon beforehand, and known and expected accordingly, as that of the death of Alkestis.

*Συμμέτρως δ' ἀφίκετο*
*φρουρῶν τόδ' ἦμαρ, ᾧ θανεῖν αὐτὴν χρεών* [a].

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* This is further illustrated by verse 1144, in the speech of Hercules, when he restores Alkestis the same day to Admetus.

*Οὔπω θέμις σοι τῆσδε προσφωνημάτων*
*κλύειν, πρὶν ἂν θεοῖσι τοῖσι νερτέροις*
*ἀφαγνίσηται, καὶ τρίτον μόλῃ φάος.*

The third of the month is meant here also. We learn indeed from the Scholia on Aristophanes, (Lysistrata, 613. cf. ad 601: 603: 612:) that the *νεκρῶν ἄριστον* (after the death) could be celebrated at the earliest only on the *third* day: but that is not the celebration here intended; only that as Alkestis must undergo the ceremony of purification before she could again speak to any living person, and could not undergo that ceremony before the next day, she could not again speak to any one before the third day.

[y] ii. iii. 344. 21. cf. Stobæus, Antholog. i. 167. Tit. v. 82. Serenus—for a pretended anecdote of Plato and Euripides—on the line of the Hippolytus,

*Τί δ' αἰσχρὸν ἂν μὴ τοῖσι χρωμένοις δοκῇ.*

[z] Ver. 320.

[a] 26.

Καὶ μὴν τόδε κύριον ἦμαρ,
.. .. .. ..
ᾧ χρῆν σφε μολεῖν κατὰ γαίας[b].

Πεπρωμένη γὰρ ἡμέρα βιάζεται[c].

Ἐπεὶ γὰρ ᾔσθεθ' ἡμέραν τὴν κυρίαν
ἤκουσαν[d].

Secondly, the day on which it opens, so determined upon and known of beforehand, coincided with the very beginning of the Thessalian year.

Οἴσω δὲ πένθος οὐκ ἐτήσιον τὸ σὸν,
ἀλλ' ἔς τ' ἂν αἰὼν οὑμὸς ἀντέχῃ, γύναι[e].

Πᾶσιν δὲ Θεσσαλοῖσιν ὧν ἐγὼ κρατῶ
πένθος γυναικὸς τῆσδε κοινοῦσθαι λέγω[f].

Αὐλῶν δὲ μὴ κατ' ἄστυ, μὴ λύρας κτύπος
ἔστω, σελήνας δώδεκ' ἐκπληρουμένας[g].

In the first of these passages a mourning for a year is opposed to one for the whole of life; and the contrast is heightened if the death of Alkestis itself was understood to have been happening on the first day of this year. In the last, the term or period of mourning prescribed for the subjects of Admetus in general is twelve moons—i. e. twelve lunar months; implying that the calendar in this instance was lunar, and twelve moons by the calendar were twelve lunar months. And not only so, but

Σελήνας δώδεκ' ἐκπληρουμένας—

in which the use of the present or passing tense instead of the past or perfect is remarkable. For the proper meaning of the passage so expressed is, "While twelve moons or months are being fulfilled; are in the course of fulfilment:" and there is an emphasis also in the preposition compounded with the verb, which gives it over and above an intensive force—"Until these twelve moons or months should be entirely and completely fulfilled." If so, they must have been intended of the twelve moons or months of the civil lunar year; from the first day of the first to the last day of the twelfth. And if the first day of the first bore date from the death of Alkestis, the death of Alkestis also must have

[b] Ver. 105.
[c] 147.
[d] 158.
[e] 336.
[f] 425.
[g] 430.

been falling on the first day of the year. We may infer then two things from this representation ; one that the calendar of Thessaly in the time of Euripides was well known to have been a lunar one, the other that this play of his was so contrived as to open on the first day of this Thessalian lunar year.

Now the Thessalian calendar, as we have seen, being reducible to the epoch of the fourth Type, from B. C. 517 to B. C. 357 would still be beginning in the winter. The action of the Alkestis then, as laid in Thessaly, and at this early period of Thessalian history, may be assumed to have been purposely intended by Euripides to open on the first day of this calendar, which in the rectified years of the cycle would have been January 2. And this may serve to explain also the arrival of Hercules, (who acts so important a part in the economy of the play,) at the palace of Admetus the same day. We have collected from the Trachiniæ of Sophocles [h], that according to one view of the duration and succession of the Twelve labours of Hercules, which was as natural and probable *a priori* as any—there was a fresh labour every year, and they lasted twelve years in all *. He arrives at the palace of Admetus on this occasion, when he was now on his way to discharge one of the tasks of this kind, which had been imposed upon him by Eurystheus [i]: consequently at the beginning of the Bœotian year. And the relation of the Thessalian to the Bœotian calendar was such that the first of the former was the twelfth of the latter ; so that *a priori* it was a possible coincidence that Hercules might have set out on this errand only after the first of Bucatius at Thebes, yet be arrived at the palace of Admetus by the first of the first month (Bomius) in the Thessalian calendar.

The date of the play, as we observed before [k], was considered to have been lost, until the recovery by Dindorf of an ancient scholium brought it to light. Its actual date was consequently the year of Glaukines, B.C. 438[l]: and the knowledge of this fact, as we have seen[m], was of very great service, for the explanation of the allusion to the Carnean month, which occurred in the play itself[n], and the discovery thereby made of the nature and epoch of the calendar. The coincidence of the first of any of the months of that calendar with the full of the moon was not such as could have been assumed and predicated of it at any time; but at this time it was critically holding good.

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* The duration of these labours indeed is found differently represented. Apollodorus, Bibl. ii. v 11, the first ten took up only *one* year and eight months: according to the scholia on the Iliad, Θ. 368, eight years and one month, (cf. the Anecdota Gr. Par. iii. 39. 21. Θ. 368); according to Tzetzes, Chil. v. 111, eight years and eight months. Cf. Anecdota, iii. 359. On this point the poets and mythologists of antiquity were at liberty to imagine just what they pleased.

[h] Supra, 559.

[i] Ver. 65 sqq.

[k] Supra, 460.

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## vii. The Ἀνδρομάχη.

The scene of this play too is laid in Thessaly; yet it may be shewn that it begins and ends in the Delphian month Busius: though the result of that proof will be to demonstrate that the unity of time is either totally disregarded in this play, or so strictly preserved, that even truth and possibility are sacrificed to it.

For, i. Orestes arrives at the palace of Neoptolemus and Hermione in Thessaly on this day[o]; and at that time the death of Neoptolemus, though already projected, had not yet taken place—

> Τὸν δ' Ἀχιλλέως
> μηδὲν φοβηθῇς παῖδ', ὅσ' εἰς ἐμ' ὕβρισε.
> τοία γὰρ αὐτῷ μηχανὴ πεπλεγμένη
> βρόχοις ἀκινήτοισιν ἕστηκεν φόνου
> πρὸς τῆσδε χειρὸς, ἣν πάρος μὲν οὐκ ἐρῶ,
> τελουμένων δὲ Δελφὶς εἴσεται πέτρα[p].

And Hermione makes her escape with him the same day[q].

ii. Yet after this Orestes is at Delphi, organising and taking part in the attempt on the life of Neoptolemus[r]: though the distance, whether from the Thetidium[s] or from Pharsalus[t] in Thessaly, could not have been less than three days' journey. And no sooner has the escape of Hermione and the danger which threatened the life of Neoptolemus been made known to Peleus[v], than a messenger from Delphi arrives with the news of his actual death[x]; and presently after his dead body itself is brought on the stage. Yet there is no interruption in the continuity of the action, as all belonging apparently to one and the same day. It is manifest then that no attention could have been paid in this play to the unity of time. It begins and ends the same day; yet it comprehends in reality six or seven days at least—as may thus be proved.

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[l] Cf. Aristoph. Equites, 1248, and Alkestis, 181: Acharnenses, 894: Alkestis, 368. Cf. also Thesmophor. 201: Alkestis, 694.

[m] Supra, 459.

[n] 445–452.

[o] 881–1008.

[p] 993. cf. 1063–1065.

[q] 1048–1055.

[r] 1090 sqq.: 1109 sqq.: 1115: 1074, 1075.

[s] Cf. 16–23.

[t] 886. 925: 1023: cf. 16–21: 42: 117 sqq

Neoptolemus was already at Delphi at the opening of the action[y]; and he had been there three days before the attempt was made on his life.

> Ἐπεὶ τὸ κλεινὸν ἤλθομεν Φοίβου πέδον,
> τρεῖς μὲν φαεννὰς ἡλίου διεξόδους
> θέᾳ διδόντες ὄμματ' ἐξεπίμπλαμεν[z].

The attempt consequently was made on the *fourth* day from his coming; and the day of the attempt, it appears, was the stated one for the consultation of the oracle. If so, the seventh of Busius.

> Ἡμεῖς δὲ μῆλα, φυλλάδος Παρνησίας
> παιδεύματ', οὐδὲν τῶνδέ πω πεπυσμένοι,
> λαβόντες ᾖμεν, ἐσχάραις τ' ἐφέσταμεν,
> ξὺν προξένοισι μάντεσίν τε Πυθικοῖς[a].

The date of his arrival therefore must have been the third of Busius. The scene consequently could not have opened in Phthia earlier than the fourth, if Neoptolemus was already at Delphi, and Orestes was not yet there, when it opened: nor could it have closed earlier than the tenth, if the dead body of Neoptolemus had already been brought thither from Delphi, before it closed.

The chronology of this play therefore in strictness would require to be distributed over seven successive days; though *κατ' οἰκονομίαν*, they are all to be supposed comprehended and summed up in one day. On the *fourth* of Busius at Delphi, the day after the arrival of Neoptolemus there, the scene opens at the Thetidium in Phthia; and the same day Orestes arrives and carries off Hermione. On the third day after this, the sixth of Busius—he must be supposed to be already at Delphi, concerting upon the spot the scheme for the death of Neoptolemus[b]. On the *fourth* day, the *seventh* of Busius, the death of Neoptolemus takes place, and the messenger, who brings the news of it to Peleus, must be supposed to have set out on his errand; and the same day too—but after him—the bearers of the dead body itself. On the *seventh* day, the tenth of Busius, Peleus receives the news of the flight of Hermione and of the death of Neoptolemus, (confirmed directly after by the appearance of his dead body,) both at once: and with this consummation the play closes.

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[v] Ver. 1062 sqq. [x] 1070. [y] 50, 51. 75: 558: 1240. [z] 1085. [a] 1100.

It is manifest then that the action of this drama offends against that one of the three unities of tragedy, the unity of time, on which Aristotle insists so much, to a greater extent than any other which is extant at present, except the Agamemnon of Æschylus, or the Eumenides, or, as we shall probably see, Euripides' other play of the Supplices. Its historical date is not known[c].

### viii. The Ἱκετίδες.

The scene of this play is laid at Eleusis in Attica: and as the argument of the play is a continuation of that of the Phœnissæ, it might be supposed at first sight that it was a kind of supplement to the Phœnissæ, and that both appeared together. The date of the Phœnissæ however, as we have seen, could be determined only within certain limits; and that of this play is entirely unknown, from testimony at least. After all, it is most probable that the two plays, as to the order in which they were composed and represented, were entirely independent of each other; and that if there appears at present to be any connection between them, it is simply due to an accidental coincidence—viz. that the argument of the one is the death of the seven chieftains, that of the other is their burial.

We may observe however that as, in adjusting the chronology of his Phœnissæ to its proper argument, Euripides would have to choose between the month of the spring Nemea and that of the summer, so would he have to do in this play also. And it appears to us that, though he considered it necessary for the sake of the former argument to lay the action in his Phœnissæ entirely in the spring Nemean month—he considered it equally necessary for the object which he was proposing in *this* play, to lay it in the summer Nemean month.

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[b] 1090–1095.

[c] Cf. Aristoph. Lysistrata, 155: and the Andromache, 629.

For first, the action of this play certainly opens at Eleusis; in the Eleusinium, or temple of Demeter and the Kore, at Eleusis itself[d]—and at the stated time of one of the ceremonies in the Attic calendar, to which the Athenians gave the name of *προηροσίαι*, or *θυσίαι πρὸ ἀρότου*: for the performance of which Æthra was just come to Eleusis, when she discovers this company of suppliants there—

> *Τυγχάνω δ' ὑπὲρ χθονὸς*
> *ἀρότου προθύουσ', ἐκ δόμων ἐλθοῦσ' ἐμῶν*
> *πρὸς τόνδε σηκὸν, ἔνθα πρῶτα φαίνεται*
> *φρίξας ὑπὲρ γῆς τῆσδε κάρπιμος στάχυς*[e].

We shall have occasion to consider this ceremony hereafter. At present, it is sufficient to observe that, as we learn from Plutarch and other authorities, the Athenians had three sacred *ἄροτοι* in the course of their year; one of which, and according to Plutarch the oldest, was that which, in contradistinction to the other two, was called *ἐπὶ Σκίρῳ*, a locality close to Eleusis, and at the mouth of the Kephisus there. In our opinion this was the occasion intended in the present instance, and supposed to have been in course just at the opening of this play. It had a stated date in the Attic calendar; and we are able to divine that date, and to fix it, on probable grounds, to the *fifth* of Boëdromion.

It follows then that, if this play of the Supplicants opened on the stated date of the *ἄροσις ἐπὶ Σκίρῳ*, it opened on the 5th of the Attic Boëdromion. And that their arrival must have been taking place in the month devoted to the mysteries, might be inferred from the terms in which Adrastus alludes to it—

> *'Ελθεῖν δ' ἔτλησαν δεῦρο καὶ ξένον πόδα*
> *θεῖναι, μόλις γεραιὰ κινοῦσαι μέλη,*
> *πρεσβεύματ' οὐ Δήμητρος ἐς μυστήρια,*
> *ἀλλ' ὡς νεκροὺς θάψωσιν*[f] *κ', τ. λ.*

Yet that the mysteries themselves were not at hand, and that they had not come on this occasion, as candidates for admission to the mysteries, appears not only directly from the testimony of this passage, but also indirectly from the locality in which they are first discovered, the interior of the temple at Eleusis[g], and the circumstances under which they are represented there; viz. surrounding Æthra, with the *κλάδος ἱκετήριος*—the olive-branch entwined with wool—in their hands.

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[d] Ver. 1–10.

[e] 28.

[f] 171.

> *Δέσμον δ' ἄδεσμον τόνδ' ἔχουσα φυλλάδος*
> *μένω πρὸς ἁγναῖς ἐσχάραις δυοῖν θεαῖν* [h]—

with which we should compare the address of Adrastus to them also infra—

> *Ἄγ' ὦ γεραιαὶ στείχετε, γλαυκὴν χλόην*
> *αὐτοῦ λιποῦσαι φυλλάδος καταστεφῆ* [i]—

for, as we have learnt from the testimony of Andokides[k], to deposit an *ἱκετηρία* or branch of this description within the temple of Demeter at Eleusis, any time during the mysteries, was a breach of the mystical laws, and punishable by death. And it is not conceivable that Euripides would have opened his Supplices in the midst of the mysteries, with the commission of an offence of that kind. Nor in fact does anything occur in this play which would lead to the inference that, however near to the proper time of the mysteries, it was actually opening at it[l].

This play therefore may be assumed to have begun on the stated date of the *θυσία ἐπὶ Σκίρῳ*, the 5th of Boëdromion. And herein we may observe these coincidences; viz. that, if it began in the month Boëdromion, it began in the ninth month of the Attic calendar; and if it began in the ninth month of the Attic calendar, it began in the ninth of the Argive also: and if it began in the ninth month of the Argive calendar, it began in the stated month of the summer Nemea, the proper month of which, in the Argive calendar, as we hope to shew hereafter, was the ninth, and the proper day of the month the first of the ninth.

We must here then take into consideration the relation of the fifth of the Attic Boëdromion to the first of the summer Nemean month; preliminary to which it is necessary to observe first that the stated years of the Nemea æstiva, in their proper cycle, that of the Argive calendar, the Octaëteric of the third Type, were the *second* and the *sixth;* and their corresponding years in the Attic cycle, that of Type i, were the *fourth* and the *eighth:* secondly, that in the second year of the Argive cycle the stated date of the ninth month was August 19, in the fourth year of the Attic, the stated date of Boëdromion 5 was September 12: in the sixth year of the former the stated date of the ninth month was September 3, in the eighth of the latter, the stated date of Boëdromion 5 was August 28. It follows that if the action of the Suppliants was laid in the summer Nemean month, and consequently later than the first of that month in the Argive calendar, in the proper summer Nemean year, yet on the 5th of Boëdromion in the Attic calendar also—it must have been laid in the second year of the Argive cycle, the only summer Nemean year in which the coincidence was possible, that the proper Nemean date could have preceded the fifth of the Attic Boëdromion.

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[g] Ver. 1, 2. [h] 32. [i] 258. [k] Supra, pag. 70. [l] Cf. 32: 94–97.

And though this year is not known at present from actual testimony, it may be probably conjectured. There are certain passages in the play which strongly imply that it was written to serve a political object[m], and would have suited the time when the Argives were hesitating whether to renew the 30 years' truce, which was just about to expire, with the Lacedemonians, or to join the Athenians against them; and this time having been B. C. 421[n], it is observable that that was a summer Nemean year, in which the date of the games as usual, Period i. Cycle xvi. 2. would be August 19, and the date of the 5th of Boëdromion, by the old Attic calendar, Period ii. Cycle ii. 4, would have been September 12, and by the Metonic calendar of the time being, Period i. 12, would be only two days later, September 14.

This play too offends against the unity of time, and almost to as great an extent as the Andromache. The events of five or six days at least are all comprehended within the limits of that one, on which the action is supposed to have begun and ended alike. For after Theseus had been prevailed on to grant the petition of the Suppliants, he would have to collect his army, and to march to Thebes, and to defeat the Thebans in battle, before he could get possession of the bodies of the fallen chieftains; and when he had done so, he would have to march back with them to Attica, before they could be exhibited on the stage there. Yet all this is supposed to have been done the same day.

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[m] 1171–1175: 1191–1204.

[n] Thucyd. v. 14.

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### ix. The Ἰφιγένεια ἐν Αὐλίδι.

The scene of this play, as its name implies. is laid at Aulis in Thessaly. With respect to the time at which the action begins, or the calendar to which it was accommodated, the argument of the play itself is historical. It was founded on the supposed historical fact of the detention of the Greeks at Aulis, before their departure to Troy; and, as referrible to the period of that detention in general, the time at which it is supposed to have begun, it appears from its own testimony, is that of the day before its termination. This interval of preliminary detention was terminated by the sacrifice of Iphigenia this same day[o]; and the fleet set sail on the next.

Now tradition ascribed this detention to the prevalence of winds from the north; and Euripides, in this play itself, ascribes it to winds, "adverse to the Euripus[p]," that is, winds from the north also. These winds from the north, of which the tradition of antiquity made this use, were no doubt the Etesian winds; which in the sea of the Greeks, setting in every year about the heliacal rising of Sirius, were known from experience and observation to continue to blow for forty, or forty-five, or even fifty days, through the course of the subsequent summer[q].

In the calendar of Geminus the setting in of these winds is dated July 23, the date of the *ortus caniculæ,* according to Eudoxus; and their ceasing to blow, just 40 days later, on the first of September: and though an earlier date of the cessation is found in the same calendar, attributed to Euctemon, Leonton 17, August 13; yet this date of the cessation, Sept. 1, being ascribed to Callippus, we may presume it was in all probability the Metonic date* of the same natural event in Euripides' time, and that which he himself, *a priori*, would be the most likely to adopt. If therefore he assumed, as the date of the action of his Iphigenia, the day before the cessation of the Etesian winds, and if the day of that cessation in the Metonic calendar of his time was Sept. 1, the day on which the action of his Iphigenia begins must have been August 31. Its internal evidence, as far as we have been able to discover, is calculated to confirm this hypothesis.

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[o] 1571–1576. 1594–1597. 1609.

[p] Ver. 1323–1329.

[q] Apollon. Rhod. ii. 516–530, and the Scholia: cf. Diodor. Sic. iv. 82: Nonnus, v. 269–279: Aratus, Phæn. 150–154, and the Scholia: Hyginus, Poeticων Astron. ii. 4: Hipparchus in Aratum, Comm. ii. Uranolog. 212 E: Geminus, xiv. 58 D–60 D: cf. ii. 13 C. D: Proclus, ad Hesiod. 661: Suidas, Ἐτησίαι: Etym. M. Ἐτησίας: Seneca, v. 278: Natur. Quæst. v. x. 2: xi. 1: Cicero, De Natura, ii. 53, 131: De Divinatione, i. 57, 130: Pliny, H. N. ii. 47. 328: xiv. 20: xvi. 42: Ammianus Marcellinus, xxii. 15: Servius ad Æneid. iii. 141: x. 273: Clemens Alex. Strom. vi. iii. 29. p. 114. l. 26: Anecdota Græca Paris. ii. 131. 12–16. Also pag. 134, supra.

The play opens in the night time, or rather early before morning, and the air is supposed to be still at the time—

> Σιγαὶ δ' ἀνέμων
> τόνδε κατ' Εὔριπον ἔχουσιν[q].

And stillness of the air, and the absence of wind, at night, and the contrary affections in the day time, were another criterion of the Etesian season[r]. In the dialogue between Agamemnon and the Παιδαγωγὸς of Clytemnestra, the former begins with the question—

> Τίς ποτ' ἄρ' ἀστὴρ ὅδε πορθμεύει;

to which the old man answers,

> Σείριος, ἐγγὺς τῆς ἑπταπόρου
> Πλειάδος ᾄσσων ἔτι μεσσήρης[s].

And after some further conversation, which may be supposed to have occupied any length of time we please, day is alluded to as breaking, and the sun as about to rise.

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* The Metonic date of the ortus Caniculæ in Geminus is the 25th of Carkinon, July 21; and supposing the next day, July 22, the first of the Etesian winds, the 40th or last, even according to Meton, would be August 30. In the calendar of Geminus, the entry, for the 5th of Parthenon, (Sept. 1,) as the text is read at present, is ... Καλίππῳ δὲ ... Ἐτησίαι πνέουσι, where the necessity of the case requires we should read παύονται, or λήγουσι.

[q] Ver. 10.

[r] Aristotle, Opp. ii. 946 a: Problemata, xxvi. 51: Διὰ τί οἱ Ἐτησίαι, ταύτην δὴ τὴν ὥραν ἀεὶ, καὶ τοσοῦτοι, πνέουσιν; καὶ διὰ τί ληγούσης τῆς ἡμέρας λήγουσιν, καὶ τῆς νύκτος οὐ πνέουσιν; —Meteorologica, iii. 5. p. 52. 26: Οἱ δ' Ἐτησίαι πνέουσι μετὰ τροπὰς καὶ κυνὸς ἐπιτολήν ... καὶ τὰς μὲν ἡμέρας πνέουσι τὰς δὲ νύκτας παύονται—Pliny, H. N. ii. 48: Etesiæ noctu desinunt fere, et a tertia diei hora oriuntur. Cf. Theophrastus v. De Ventis, § 11, 12: Seneca, Opp. v. 279: Nat. Quæst. v. xi. 1: Isidore, De Rerum Natura, xliii. 258 G.

[s] Ver. 6.

*Ἴθι· λευκαίνει,*
*τόδε φῶς ἤδη λάμπουσ' ἠὼς,*
*πῦρ τε τεθρίππων τῶν Ἀελίου*[t]—

that is, at the opening of the play, between midnight and sunrise, the Pleiads were past the meridian, but Sirius, following them, was not yet arrived at it: and both these sidereal characters of the time would suit this assumed date of the opening, August 31. For it has been seen, from calculation[v], that for the latitude and meridian of Ascra, B. C. 569, the Pleiads passed the meridian May 27, at 9.30. 33·4 A. M., and therefore August 31, 96 days later, would pass the meridian at 3.13. 5·9 A. M., and Sirius having passed the meridian at 5.37. 47·9 A. M. September 16; 16 days before must have done so August 31, 6.40. 42·4 A. M. These dates would be almost equally true, for the latitude and meridian of Aulis, any time in the life of Euripides. The aspect of the heavens consequently, on the morning of August 31, so far as these two phenomena were concerned, would be such as is here supposed at the opening of the play. About an hour before sunrise Sirius would be two hours off the meridian, and the Pleiads about an hour past it.

The date of the play is not known, further than may be collected from the fact which has been left on record[x], that both this and the Bacchæ, another of the extant dramas of Euripides, were brought out after his death: *Οὕτω γὰρ καὶ αἱ διδασκαλίαι φέρουσι, τελευτήσαντος Εὐριπίδου τὸν υἱὸν αὐτοῦ δεδιδαχέναι ὁμώνυμον ἐν ἄστει Ἰφιγένειαν τὴν ἐν Αὐλίδι, Ἀλκμαιῶνα, Βάκχας*: and as he died at the end of B. C. 406, we may consider it probable that both these plays were written a little before his death; and possibly in this very year, B. C. 406 itself, or the year before, B. C. 407. And of this year, B. C. 406, it would be very observable that, as reduced to the period of the Argive octaëteric cycle, it would correspond to Period i. 137, Cycle xviii. 1: in which our supposed date of the action of the Iphigenia in Aulide, August 31, was the stated date of the *νουμηνία* of the ninth month. And that the action was supposed to open on the *νουμηνία* of some month, (or at least between the *νουμηνία* and the *πανσέληνον*,) might perhaps be inferred from the evasive answer of Agamemnon to Clytemnestra's question, about the time fixed for the celebration of the nuptials of Iphigenia—

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[t] Ver. 156. [v] Supra Vol. i. 282: 288.
[x] Scholia ad Ranas, 67. cf. Suidas, in Εὐριπίδης.

> ΚΛ. Ἀλλ' *εὐτυχοίτην· τίνι δ' ἐν ἡμέρᾳ γαμεῖ;*
> ΑΓ. *ὅταν σελήνης εὐτυχὴς ἔλθῃ κύκλος*[y].

A still more extraordinary coincidence might be pointed out of this year, B. C. 406, and of the corresponding year of the period and cycle of the Argive calendar; viz. that if you go back just 98 cycles of eight years, 784 years, from this date of August 31, B. C. 406, they bring you precisely to the same day, to the same month, and the same year of the cycle, B. C. 1190, the true year of the sailing of the expedition to Troy, if B. C. 1181, the beginning of the tenth year of the war, was the true date of the capture of the city. We cannot take upon ourselves to say that Euripides actually went back from August 31, B. C. 406, in the Argive calendar of his own time, to August 31, B. C. 1190, in the same calendar, carried back to the Trojan æra; yet it is not impossible that he might have done so. In any case, the chronology of this play, as soon as it comes to be inquired into, can leave no doubt of the period of the natural or Julian year, from which *he* in particular must have dated the years of the war; viz. from the end of August or the beginning of September. And others of his plays, in like manner, will leave no doubt in what season of the natural year, and what month of the Julian calendar, he must have dated the capture of the city.

### x. The Ἰφιγένεια ἐν Ταύροις.

The scene of this play is laid on the Tauric Chersonese: and though it might have been inferred from the argument that it must have been connected with the Iphigenia in Aulide, (particularly as the argument of the latter is correctly, however briefly, summed up in the prologue[z] of the former,) and therefore that it must have been later than the Iphigenia in Aulide—yet in reality that would not have been possible, if the Iphigenia in Aulide itself was not written before B.C. 407 or 406: and, in fact, it appears from the scholia on the Acharnenses[a], that the Iphigenia in Tauris was actually written even before the date of that play, B.C. 425.

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[y] Ver. 716, 717.

[z] 24–30.

There is nothing however in this play which is calculated to illustrate any contemporary calendar. The allusion to the *χοαὶ*, which Iphigenia was proposing to offer to the manes of Orestes, when he was discovered to her[b], might have appeared to point to the lustral month, Anthesterion—were they not to be explained *κατ' οἰκονομίαν*—as arising out of her dream the night before[c]: and Anthesterion, in fact, would have been too early for the arrival of Orestes and Pylades by sea from Greece, and, as it is supposed, by favour of winds from the south or west—

> *Αὔραις ἐν νοτίαις*
> *ἢ πνοιαῖσι Ζεφύρου*[d]—

which must be understood of a time later than the setting in of the Flatus Favonii at least. Shepherds and herdsmen too were tending their flocks and herds, in the open air, even on the shores of the Tauric Chersonese[e]; which is an argument of an advanced period of the natural year. We may infer however that, as referrible to some calendar or other, the action must have been supposed to be opening at the end or the beginning of the lunar month, and that the night would be dark after sunset—

> *Ὅταν δὲ νυκτὸς ὄμμα λυγαίας μόλῃ,*
> *τολμητέον τοι ξεστὸν ἐκ ναοῦ λαβεῖν*
> *ἄγαλμα*[f].

### xi. The Βάκχαι.

The scene of this play is laid at Thebes, and the time, at which it must be supposed to have opened, in this instance is defined by the nature of the fable itself; which being the first celebration of the Dionysian festival any where in Greece, beginning with Thebes, the action necessarily opens in the Dionysian month at Thebes, (the second in the calendar, as we have seen [g], answering to the Attic Anthesterion,) and on the stated day of the Dionysia, the 7th of the month. And this fact serves to explain the allusions to external nature, which occur in the play; all of them, as we may have occasion to shew on a future opportunity, such as would be adapted to the first of the spring months of the year [h].

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[a] Ad ver. 47.

[b] 61. 159.

[c] 44–60, 143–166.

[d] 433, 434.

[e] 255: 260–305.

[f] 110.

With respect to the date of this play; it was acted, as we have seen, along with the Iphigenia in Aulide after the death of Euripides; and therefore was probably written a year or two before. If it was actually composed in, or against, B. C. 407—(as it might have been under such circumstances)—that year would be remarkable, as the first of the Metonic correction in the Bœotian calendar, when Bucatius, the first month, would bear date Jan. 14, and Hermæus, the second, Feb. 13, and the 7th of that month, the supposed date of this play, Feb. 19.

This drama is the most mystic of any of the extant remains of the ancient tragic stage, and Euripides is said to have written it, to clear himself from the charge of impiety; to which he had rendered himself obnoxious by the freedom of his remarks on the popular religion in his former plays.

### xii. The Κύκλωψ.

The scene of this play is laid in Sicily; and principally in the cave of the Kyclops there. It is the more curious and interesting at present, as being the only entire specimen still remaining of the ancient Σάτυροι; one of which was required to accompany the tragic *τριλογία*, on every occasion of such an exhibition. The date is unknown; but the action begins in the spring; the sea is open at the time [i]; the flocks are pasturing abroad [k]; and the spring is alluded to by name—

*Ὑπάγει μ' ὁ χόρτος εὔφρων*
*ἐπὶ κῶμον ἦρος ὥραις* [l].

And spring, in the popular division of the year, extended from the Flatus Favonii, in Gamelion or Anthesterion, to the Ortus Pleiadum, in Thargelion; just before which, we consider it probable, the action of this tragi-comic production was laid. And this too serves to throw light on Euripides' opinion of the date of the Νόστος; for Ulysses has just come from Troy, when he arrives in Sicily: and Euripides, like Homer, must evidently have dated the Νόστος in the spring or summer of the year next after the capture. No inference as to the time can be drawn from the allusion to Orion—

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[g] Supra, 341. 346. Bœotian calendar.

[h] Cf. 678: 735.

[i] Ver. 11–22.

[k] 44–62.

[l] 507.

Καὶ τἄστρα καὶ τὸν Ὠρίωνα δέρκομαι[m] —

which is evidently a fiction of the Chorus[n]. The description of Ætna however,

Οἰκεῖς ὑπ' Αἴτνῃ, τῇ πυριστάκτῳ πέτρᾳ[o],

may lead to the inference that it was not earlier than the third eruption of that mountain, known to the Greeks, B. C. 425.

## xiii. The Ἡρακλεῖδαι.

The scene of this play is laid in Attica. The date is unknown, except that the scholiast on Aristophanes[p] would give us reason to suppose it was earlier than the date of the Equites, B. C. 424. And an allusion occurs in it, to the full of the moon, which would so far confirm this date as to imply that it was probably acted at a time when the stated date of the Lenæa, or the Dionysia, the 11–13 of the month, was coinciding with the full of the moon.

Γᾶ καὶ παννύχιος σελάνα
καὶ λαμπρόταται θεοῦ
φαεσίμβροτοι αὐγαὶ,
ἀγγελίαν μοι ἐνέγκατε[q].

We have seen that an intimation of this kind in the Œdipus Tyrannus was not without its meaning. The full moons in the Octaëteric cycle would begin to fall on the 11th of the month, when the new moon began to fall on the 27th or the 28th. And that would be the case at the end of 18 cycles—sixteen years before the close of the period: i. e. from B. C. 448–432.

And in the apostrophe to Athena, put into the mouth of the Chorus[r], we may recognise by implication a reference to the calendar date of the Panathenaic festival—

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[m] Ver. 213.

[n] Cf. 210, 211.

[o] 298.

[p] Ad Equites, 214. Dindorf however supposes a mistake in the name of the play, referred to here, as no such quotation is found in the Heraclidæ at present.

[q] Ver. 748.

ʼΑλλʼ, ὦ πότνια, σὸν γὰρ οὖδας
γᾶς σὸν καὶ πόλις, ἇς σὺ μάτηρ
δέσποινά τε καὶ φύλαξ,
πόρευσον ἄλλᾳ τὸν οὐ δικαίως
τᾷδʼ ἐπάγοντα δορύσσοντα
στρατὸν ʼΑργόθεν· οὐ γὰρ ἐμᾷ γʼ ἀρετᾷ
δίκαιός εἰμʼ ἐκπεσεῖν μελάθρων.
ἐπεί σοι πολύθυτος ἀεὶ
τιμὰ κραίνεται, οὐδὲ λήθει
μηνῶν φθινὰς ἁμέρα,
νέων τʼ ἀοιδαὶ χορῶν τε μολπαί.
ἀνεμόεντι δὲ γᾶς ὄχθῳ
ὀλολύγματα παννυχίοις ὑπὸ παρ-
θένων ἰαχεῖ ποδῶν κρότοισι.

The gloss which occurs in Hesychius, on these words, φθινὰς ἁμέρα—Τὴν ἱσταμένου τρίτην, τριμήνιον, λέγει, though evidently to be referred to this passage, has mistaken its meaning. The third of the month indeed is meant, but not the τρίτη ἱσταμένου, which never could have been styled a φθινὰς ἡμέρα in any sense—but the τρίτη φθίνοντος, the third from the end of the last decad; which is otherwise known to have been the calendar date of the Panathenæa Majora, the τρίτη φθίνοντος of ʽΕκατομβαιὼν, the 28th of Hecatombæon[s].

## xiv. The ʼΊων.

The scene of this play is laid at Delphi. It opens in the morning, on the seventh of the oracular month Busius—

Καὶ γὰρ, ὡς ἐγὼ κλύω,
χρηστήριον πέπτωκε τοῖς ἐπήλυσι
κοινὸν πρὸ ναοῦ· βούλομαι δʼ ἐν ἡμέρᾳ
τῇδʼ, αἰσία γὰρ, θεοῦ λαβεῖν μαντεύματα[t]—

Κυρεῖ δʼ ἅμʼ ἱππεύοντος ἡλίου κύκλῳ
προφῆτις ἐσβαίνουσα μαντεῖον θεοῦ[v]—

Θάσσει δὲ γυνὴ τρίποδα ζάθεον
Δελφὶς, ἀείδουσʼ Ἕλλησι βοὰς,
ἃς ἂν ʼΑπόλλων κελαδήσῃ[x]—

[r] Ver. 770 sqq.
[s] Cf. supra, pag. 90: 107 *n.*
[t] 418. cf. 422–424.
[v] 41.
[x] 91. cf. 94–101.

> Ἅρματα μὲν τάδε λαμπρὰ τεθρίππων
> ἥλιος ἤδη λάμπει κατὰ γῆν,
> ἄστρα δὲ φεύγει πυρὶ τῷδ' αἰθέρος
> ἐς νύχθ' ἱερὰν[y].

Nor is there here any allusion to the moon; as neither could there have been with propriety on the morning of the seventh of the month.

At this moment Ion is ushered in, in the character of the *νεωκόρος* of the temple, entering on his usual employment, in preparing it for such an occasion—

> Ὁρῶ γὰρ ἐκβαίνοντα Λοξίου γόνον
> τόνδ', ὡς πρὸ ναοῦ λαμπρὰ θῇ πυλώματα
> δάφνης κλάδοισιν[z].

From the scene which follows it appears that the time of the year was that of the immigration of strange birds into Greece, and of their building and breeding; which is another criterion of the month Busius in the Delphian calendar, or that of Anthesterion in the Attic—

> Τίς ὅδ' ὀρνίθων καινὸς προσέβα;
> μῶν ὑπὸ θριγκοὺς εὐναίας
> καρφηρὰς θήσων τέκνοις;
> ψαλμοί σ' εἴρξουσιν τόξων.
> οὐ πείσει; χωρῶν ἐν δίναις
> ταῖς Ἀλφειοῦ παιδούργει,
> ἢ νάπος Ἴσθμιον,
> ὡς ἀναθήματα μὴ βλάπτηται
> ναοί θ' οἱ Φοίβου[a].

Now the recognition of Ion by Creusa takes place this day: with respect to which at last, and to his previous history (dated from his conception) we must compare first—

> Ἦλθές μοι χρυσῷ χαίταν
> μαρμαίρων, εὖτ' εἰς κόλπους
> κρόκεα πέταλα φάρεσιν ἔδρεπον,
> ἀνθίζειν χρυσανταυγῆ[b]—

which describes the flowery season, extending, for the climate of Attica, from Anthesterion to Thargelion. Secondly, the account of his birth, as given first by Hermes—

> Ἄγνως δὲ πατρὶ, τῷ θεῷ γὰρ ἦν φίλον,
> γαστρὸς διήνεγκ' ὄγκον· ὡς δ' ἦλθεν χρόνος,
> τεκοῦσ' ἐν οἴκοις παῖδ'[c]—

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[y] Ver. 82. cf. 122.

[z] 78. cf. 102–106: 112–123. and the Schol. in Plutum, 39.

[a] 171.

[b] 887–890.

[c] 14.

afterwards, by Creusa herself—

> *Δεκάτῳ δέ σε μηνὸς ἐν κύκλῳ*
> *κρύφιον ὠδῖν' ἔτεκον Φοίβῳ*[d]—

which dates the birth at last in the tenth month, by the lunar calendar, from the conception.

It appears further that, as soon as he was born, he was carried by Hermes to Delphi, and deposited in the temple of Apollo; and on what was the stated day of the *μαντεία* at the time[e]. If so, he was born on that day, the 7th of Busius by the Delphian, the 17th of Anthesterion by the Attic.

And hence we may determine the date of the conception also, assuming only that Euripides was not likely to suppose the interval from the conception to the birth more than 275 days[f]. Reckon back 275 days exactly from Anthesterion 17 in the Attic calendar, in the old octaëteric cycle in one year, and you come to Thargelion 7 in the year before *: and this being the birthday of Apollo, on that principle, Ion, born the next year in Anthesterion, on the 17th of the month, must have been conceived this year in Thargelion, the month sacred to Apollo, and on the 7th of that month, Apollo's own

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* The 17th of Anthesterion being the 46th day from the beginning of the year, and the 7th of Thargelion being the 125th, the calculation will proceed as follows—

| | | |
|---|---|---|
| 17 Anthesterion | = | 46th day |
| add | | 354 |
| | | 400 |
| Subtract | | 275 |
| | | 125th day |
| Subtract | | 118 (59 × 2) |
| 17 Anthesterion – 275 = | | 7th Thargelion. |

or reckoning from Thargelion 7 to Anthesterion 17, we have—

| | | | |
|---|---|---|---|
| From Thargelion 7 to<br>Gamelion 7 | 59 × 4 | = | 236 days |
| Gamelion 7 to<br>Anthesterion 17 | | | 39 |
| Thargelion 7 to Anthesterion 17 | | | 275 days |

[d] Ver. 1486.

[e] 36–48.

[f] Cf. our Prolegomena ad Harmon. cap. ii. 119. also our Origines Kal. Italicæ, i. 334: and our Fasti Catholici, ii. 505: iv. 163, 164.

birth day; which, in our opinion, is too critical a coincidence not to have been designed *.

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* The above coincidence is abundantly sufficient to authenticate our assumed date of the opening of this play, both in the Delphian and in the Attic calendar; and to prove the agreement of those calendars, such as we have supposed. It might also be observed, in illustration of the Attic date, that among the crepundia, or future tokens, (deposited, with a view to his recognition some time or other, in the cradle or basket, at the birth of Ion,) a crown of the sacred olive, which was supposed never to fade nor to shed its leaves, is particularly mentioned—

> *Στέφανον ἐλαίας ἀμφέθηκά σοι τότε,*
> *ἣν πρῶτ᾽ ᾿Αθάνα σκοπελὸν εἰσηνέγκατο.*
> *ὃς, εἴπερ ἔστιν, οὔποτ᾽ ἐκλείπει χλόην,*
> *θάλλει δ᾽ ἐλαίας ἐξ ἀκηράτου γεγώς*[1].

And without insisting on the privilege of the sacred olive in that respect, it is sufficient to justify the supposition, that the olive was naturally green and in full leaf in Attica, in Anthesterion. Compare Aristophanes[2]—

> Κορμοῦ τοσουτονὶ βάρος χλωρᾶς φέρων ἐλάας—

for that play was acted in Anthesterion, at the Lenæa, B. C. 411.

In this month too the Κῶμος Πελειῶν[3], which contributes so materially to bring about the catastrophe of the play, would be a very natural circumstance, as simply a note or characteristic of spring. In the description of the banquetting room, prepared by Ion[4], some of the circumstances remind us of similar rules which are to be read of in Xenophon, attributed to Socrates; and in that of the covering or canopy of this room[5], a picture of the heavens is exhibited, which, as referred to such a season of the year as that of the Delphian Busius, or the Attic Anthesterion, would not be altogether poetical and imaginary. In this picture we have the sun setting in the west, and the moon at the same time rising in the east; and the actual year of the play being entirely unknown, for any thing which can be proved to the contrary at present, it might have been contrived for a time when the 7th of Busius was falling on the full of the moon. That would be the case 111 or 112 years after *the epoch* (i. e. B. C. 542) B. C. 431, Cycle xiv. 8 of that Type, in which the 7th of the third month fell on Feb. 22, and Feb. 22 was the date of a lunar eclipse the same year.

In the same picture, Hesperus is represented as the evening star, following the sun; and yet Phosphorus also, as the morning star, is visible in another part of the heavens at the same time: a conjunction of images in the same scene, not admissible indeed for the time of Euripides, when it had long been known that Hesperus and Phosphorus were the same, but very admissible of the time at which the action of the Ion was laid, when that was not yet known to be the case[6].

[1] Ver. 1433.
[2] Lysistrata, 256.
[3] 1196 sqq.
[4] 1132–1140.
[5] 1146–1166.
[6] Cf. vol. i. 238 note.

## xv. The Τρωάδες. xvi. The Ἑλένη. xvii. The Ἠλέκτρα. xviii. The Ῥῆσος.

We have classed these four plays together, because the argument of each is more or less connected with the subject of the Trojan war; and their chief use, in common, is to illustrate Euripides' date of the capture of Troy. The actual date of each is not necessary to be known, for this purpose; though that of the first two, the Troades and the Helene, happens to be so, or may be collected from testimony *ab extra*, that of the former, Olymp. 91, B. C. 415[g], that of the latter,

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The most significant however, of the circumstances and images of this picture, is the fact that, at the time when the sun was thus setting in the west, and the moon was thus rising in the east, the Pleiads in particular, were culminating, or on the meridian: for that is an astronomical character of such a time in the natural year, as that at which this play *de facto* must have begun. The ancients, as we have had occasion to remark, made the morning or early rising of the Pleiads a note of the beginning of summer, and their morning or late setting the same kind of token of the beginning of winter. And on the same principle, they made their being on the meridian at sunrise and setting at noon the astronomical sign of the beginning of autumn; and their being on the meridian at sunset and setting at midnight the same kind of note of the beginning of spring. Nec desunt qui tempora distinguant a Vergiliarum matutino vel vespertino ortu vel occasu, earundemque meridiano vel nocturno; illis enim hyemem et æstatem, his ver et autumnum, designari asserunt[7]—Hyemis videlicet et æstatis initia vespertino vel matutino Vergiliarum ortu occasuque signantes, item veris et autumni, cum Pleiades medio fere die vel nocte oriuntur et occidunt, ponentes ingressum[8]. These opposite phenomena of the Pleiads too, as a general rule, were supposed to be exhibited at the mean point of the interval between the heliacal rising and the cosmical setting on the one hand, and between the cosmical setting and the heliacal rising on the other; and that mean date, in this latter instance, according to the calendar of Meton, would be 89 days after Nov. 10 on the one hand, and 89 days before May 7 on the other: and the former would come very near to the date of Busius 7, Cycle xiv. 8, Feb. 22; and indeed to the date of Busius 7, in any year of the old octaëteric cycle of Type iii.

[g] Ælian, Varr. ii. 8. The text of Ælian formerly read Olympiad πρώτην καὶ ἑκτὴν; but as it specified also the name of the victor, Exænetus, of Agrigentum, the true Olympiad was thereby ascertained, Ol. xci: see Euseb. Chron. Arm. Lat. i. 294: Diod. xii. 82. Euripides with the Alexander, Palamedes, Troës,

[7] Lilius Gyraldus, De Annis et Mensibus, Opp. 770 E.

[8] Bede, De Computi Ratione, ix. Opp. i. 504. cf. De Temporum Ratione, xxxiii. ii. 135.

the year before the Thesmophoriazusæ of Aristophanes[h], B.C. 412.

i. The Troades. The scene of the play is laid on the coast of Troy. The action begins just after the capture; the captives have only been recently allotted to their respective masters[l], and the last thing, before the departure of the last of the Greeks, is to set fire to the city itself[m]. Nothing was wanting for the departure but a favourable wind[n], and some of the victors (Neoptolemus in particular, with Andromache) set sail even before the date of the play[o].

Such being the state of the case at the opening of the play, the season of the year is determined, first, by the allusion in the prologue, in which the speaker is Posidon—

Μένουσι δὲ
πρύμνηθεν οὖρον, ὡς δεκασπόρῳ χρόνῳ
ἀλόχους τε καὶ τέκν' εἰσίδωσιν ἄσμενοι,
οἳ τήνδ' ἐπεστράτευσαν Ἕλληνες πόλιν[p]—

from which it appears that having spent nine seed-times before Troy, they were about to return in the tenth; and therefore, that they must have arrived at seed-time, and the years of the war, reckoned from the time of their arrival, must have been reckoned from seed-time in the natural year.

Secondly, by the allusion which occurs to the storm at the Νόστος, both in this prologue and in the subsequent dialogue of Posidon and Athena. For that was to happen as soon as the fleet should have got to Eubœa, on its way back[q]: and besides the rain and the darkness, destined to accompany it, the hail (χάλαζα) is specified also; which would be a very natural characteristic of a storm at such a season of the year as that of the Πλειάδων δύσις.

We may conclude then that the date of the capture, recognised in this play, must have been that of the Πλειάδων δύσις, or not long before it; consequently the lunar date, that of the first dichotomy: which being assumed, though the de-

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and Sisyphus Satyricus, was beaten on this occasion by Xenocles. This date is confirmed by the Scholia on the Aves, v. 843: 1717: and on the Vespæ, ad 1317. cf. Troades, 308.

[h] Cf. Thesmoph. 1069: 1021: 862. and the Scholia. Also ad Aves, 347: 424: ad Ranas, 53.

[l] Ver. 928 sqq.

[m] 1257–1332.

[n] 94–82.

[o] 1126–1133.

[p] 19.

[q] 65, 66: 75–94.

scriptions which occur in it of the state of things in Troy, and of the festivities which accompanied the reception of the wooden horse within the walls, extend up to the time of midnight, if no allusion was made to the moon before that period of the night, none certainly was to be expected after it, as none in fact is found[r].

The capture then being thus supposed to have borne date about the Πλειάδων δύσις, and the return of the Greeks to have taken place directly after it, the death of Agamemnon, and that of Cassandra along with him, immediately after his arrival at home, must have been supposed coincident with the same season of the year also: and so it is represented in the prophetic allusion to both by Cassandra—

> Ἦ κακὸς κακῶς ταφήσει νυκτὸς, οὐκ ἐν ἡμέρᾳ,
> ὦ δοκῶν σεμνόν τι πράσσειν Δαναϊδῶν ἀρχηγέτα.
> κἀμέ τοι νεκρὸν φάραγγες γυμνάδ' ἐκβεβλημένην
> ὕδατι χειμάρρῳ ῥέουσαι νυμφίου πέλας τάφου
> θηρσὶ δώσουσιν δάσασθαι, τὴν Ἀπόλλωνος λάτριν[s].

Lastly, it is observable, that in this play even the Phrygian year (much more the Grecian) is supposed to have been lunar, at the time of the capture of Troy; as appears from the apostrophe of the chorus to Jupiter, on the recent destruction of the city—

> Φροῦδαί σοι θυσίαι χορῶν τ'
> εὔφημοι κέλαδοι κατ' ὄρ-
> φναν τε παννυχίδες θεῶν,
> χρυσέων τε ξοάνων τύποι,
> Φρυγῶν τε ζάθεοι σελᾶ-
> ναι συνδώδεκα πλήθει[t].

ii. The Helene. The scene of this play is laid in Egypt in the vicinity of the Nile—

> Νείλου μὲν αἵδε καλλιπάρθενοι ῥοαὶ,
> ὃς ἀντὶ δίας ψακάδος Αἰγύπτου πέδον,
> λευκῆς τακείσης χιόνος, ὑγραίνει γύας[v].

Yet the action is all transacted in the open air, hard by the tomb of Proteus[x]. It follows that the inundation either had not yet begun, or was already over: and that the latter must have been the real state of the case may be argued as follows;—

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[r] Cf. ver. 541–551.

[s] 446.

[t] 1071.

[v] 1.

[x] 63. cf. 1165.

i. Theoclymenus was absent at the opening of the play; and absent in the chase[y]; the season of which in Egypt was the autumnal and winter quarter of the natural year, not the spring or summer. ii. The country was covered with verdure; a still clearer intimation of the autumn or winter of the natural year, for the climate of Egypt *—

> Κυανοειδὲς ἀμφ' ὕδωρ
> ἔτυχον ἕλικά τ' ἀνὰ χλόαν
> φοίνικας ἁλίου πέπλους
> αὐγαῖσιν ἐν ταῖς χρυσέαις
> ἀμφιθάλπουσ', ἔν τε δόνακος ἔρνεσιν[z].

Not to mention that this kind of employment of itself implies a time when the waters of the river were accessible; and consequently the inundation over, and the stream confined to its natural bed. And though there is an apostrophe to the nightingale also[a]; it does not appear that it was singing at the time, and consequently that this is any argument of the spring of the year.

Again, the action opens just seven years complete after the capture of Troy: as appears first from the dialogue between Helen and Teucer—

> Hel. Πόσον χρόνον γὰρ διαπεπόρθηται πόλις;
> Teu. ἑπτὰ σχεδόν τι καρπίμους ἐτῶν κύκλους.
> Hel. χρόνον δ' ἐμείνατ' ἄλλον ἐν Τροίᾳ πόσον;
> Teu. πολλὰς σελήνας, δέκα διελθούσας ἔτη[b].

In which it is observable that the civil year of the Greeks is supposed to have been lunar even at the æra of the capture,

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* The spring in Egypt, as ushered in at least and characterised by the first appearance of verdure and leaves and flowers, begins in October, as soon as the inundation is over. Bede, De Temporum Ratione, xxxiii. (ii. 136.) quoting from Proterius, bishop of Alexandria, (when he was arguing that the xii Kal. Apriles, March 21 in the Julian calendar, Phamenoth 25 in the Alexandrine, could not be considered the beginning of spring as such,) makes him say, Sed et Ægyptus nostra hyeme media maxime campos herbis floreos et sylvas fertur habere pomis onustas. A clear testimony to this point however is borne by Prosper Alpinus, from his own observation during a three years' residence in Egypt: Rerum Ægyptiacarum i. cap. i. cap. v: De Medicina Ægypt. i. vii: not but that similar testimony might be adduced from every modern book of travels in Egypt.

[y] Ver. 152–154: 1169. [z] 179. [a] 1107–1112. [b] 111.

and that the interval between the capture and this arrival of Teucer's is specified as so many revolutions of the natural cycle of production; the proper epoch of which is, of course, seed-time, and the proper duration, from seed-time to seed-time. It is implied hereby that the capture took place at seed-time; and that this visit to Egypt, seven cycles of this kind afterwards, was taking place at seed-time too.

Secondly, i. from the soliloquy of Menelaus, as soon as he also lands in Egypt—

Ἐγὼ δ' ἐπ' οἶδμα πόντιον γλαυκῆς ἁλὸς
τλήμων ἀλῶμαι χρόνον ὅσοντερ Ἰλίου
πύργους ἔπερσα[c].—

which speaks of the term of his wanderings since the capture, as just approaching to an equality, in the number of years it had lasted, to the length of the siege.

ii. From his dialogue with Helen, directly after—

Hel. Ἓν δ' εἰπὲ πάντα παραλιπὼν, πόσον χρόνον
πόντου 'πὶ νώτοις ἅλιον ἐφθείρου πλάνον[d];
Men. Ἐνιαύσιον πρὸς τοῖσιν ἐν Τροίᾳ δέκα
ἔτεσι· διῆλθον δ' ἑπτὰ περιδρομὰς ἐτῶν[e].

The meaning of which is, that the length of his wanderings, since the capture, was one which required to be measured not by parts of years, (months or days,) but by whole years, by a year at a time, in seven instances, seven complete years in all; so that at whatsoever time of the year Troy had been taken, and his wanderings had begun, seven years before, at the same was this visit of his to Egypt taking place, seven years after; and *vice versa*, at what time of the year he had just arrived in Egypt on this occasion—at the same Troy had been taken, and his wanderings had begun, seven years before.

We apprehend then that, according to these representations, the action of the Helene must be supposed to have begun just as the seventh year from the capture was drawing to an end, and the eighth was about to begin. And as to the precise period of the natural year, intended by this coincidence; it may probably be collected from the following passage of the play itself—

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[c] Ver. 400. [d] 773. [e] 775.

*Δι' ἀέρος εἰ ποτανοὶ*
*γενοίμεσθα Λίβυες*
*οἰωνοὶ, στολάδες (αἳ)*
*ὄμβρον λιποῦσαι χειμέριον*
*νίσσονται, πρεσβυτάτᾳ*
*σύριγγι πειθόμεναι*
*ποιμένος, ὅς τ' ἄβροχα*
*πεδία καρποφόρα τε γᾶς*
*ἐπιπετόμενος ἰαχεῖ.*
*ὦ πταναὶ δολιχαύχενες,*
*σύννομοι νεφέων δρόμου,*
*βᾶτε Πλειάδας ὑπὸ μέσας*
*Ὠρίωνά τ' ἐννύχιον,*
*καρύξατ' ἀγγελίαν,*
*Εὐρώταν ἐφεζόμεναι,*
*Μενέλαος ὅτι Δαρδάνου*
*πόλιν ἑλὼν δόμον ἥξει*[f].

The birds which are here apostrophised are the Cranes; which being supposed by the speakers in this passage to be just migrating from the regions of rain and cold to those of warmth and sunshine, are conjured to stop at the Eurotas, and to announce to the Spartans that Menelaus, victorious over Troy, was soon to be expected at home. Now the Crane appeared in Greece at seed-time *. Therefore this

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* The ancients observed that the Crane was in the habit of migrating *twice* in the year; first from hotter climates to cooler and more temperate ones, and secondly, from colder and more winterly to warmer and milder: and that the former of these migrations took place at a stated time in the spring or summer quarter, the latter at a stated time in the autumnal. Allusions to both these facts in the natural history of the bird are to be met with; but much more frequently to the latter than to the former.

*Καὶ δ' ἄν που γέρανοι μαλακῆς προπάροιθε γαλήνης,*
*ἀσφαλέως τανύσαιεν ἕνα δρόμον ἤλιθα πᾶσαι,*
*οὐδὲ παλιρρόθιοί κεν ὑπεύδιοι φορέοιντο*[1] *κ̀, τ, λ.*

On which the scholiast observes: *Αἱ γὰρ γέρανοι τὰς τῶν καιρῶν ὑπερβολὰς οὐ φέρουσιν, ἀλλὰ χειμῶνος μὲν ἀπὸ Θρᾴκης ὡς ἐπὶ τὰ βορειότερα* (corr. *θερμότερα*) *φεύγουσι, καὶ εἰς τὴν Αἴγυπτον διατρίβουσι· πάλιν δὲ ὅτε χειμὼν* (corrige *θέρος*) *τὸν αὐτὸν ἀνύουσι δρόμον*[2]—*Τοῦ μὲν γὰρ θέρους κατὰ χώραν μένουσι, φθινοπώρου δὲ ἤδη μεσοῦντος εἰς Αἴγυπτόν τε καὶ Λιβύην ἀπαίρουσι, καὶ Αἰθιοπίαν. ὥσπερ γὰρ οὖν γῆς περίοδον εὐδυῖαι, καὶ φύσεις ἀέρων καὶ ὡρῶν*

[f] Ver. 1478 sqq.

[1] Aratus, Diosemeia, 278.

[2] Cf. Schol. Mosq. 356.

διαφορὰς, στελλόνται αἱ πᾶσαι, καὶ χειμῶνα ἠρινὸν διαγαγοῦσαι πάλιν ὅταν ὑπεύδια ἄρξηται, καὶ εἰρηναῖα τὰ τοῦ ἀερὸς, ὑποστρέφουσιν ὀπίσω[3]—Τὰ δ' ἐκτοπίζει μετὰ μὲν τὴν φθινοπωρινὴν ἰσημερίαν ἐκ τοῦ Πόντου καὶ τῶν ψυχρῶν τόπων, φεύγοντα τὸν ἐπιόντα χειμῶνα, μετὰ δὲ τὴν ἑαρινὴν ἐκ τῶν θερμῶν, εἰς τοὺς τόπους τοὺς ψυχροὺς, φοβούμενα τὰ καύματα[4]—E longinquo venire non dubium (sc. ciconias) eodem quo grues modo, illas hiemis has æstatis advenas[5].

The following are allusions to the first of these migrations, that which was observed to occur in the spring—

Ἴδε πῶς γέρανος ὁδεύει[6].

Ὡς δ' ὅτ' ἀπ' Αἰθιόπων τε καὶ Αἰγύπτοιο ῥοάων
ὑψιπετὴς γεράνων χορὸς ἔρχεται ἠεροφώνων,
Ἄτλαντος νιφόεντα πάγον καὶ χεῖμα φυγοῦσαι,
Πυγμαίων τ' ὀλιγοδρανέων ἀμενηνὰ γένεθλα,
τῇσι δ' ἄρ' ἱπταμένῃσι κατὰ στίχας εὐρέες ἑσμοὶ
ἠέρα τε σκιάουσι, καὶ ἄλλυτον ὀγμὸν ἔχουσιν[7].

Qualia trans Pontum Phariis defensa serenis
Rauca Paraetonio decedunt agmina Nilo,
Cum fera ponit hiems. illæ clangore fugaci
Umbra fretis arvisque volant, sonat avius æther.
Jam Borean imbresque pati, jam nare solutis
Amnibus, et nudo juvat æstivare sub Hæmo[8].

Qualiter Arctos
Ad patrias avibus medio jam vere revectis,
Memphis et aprici statio silet annua Nili[9].

Αἱ γέρανοι ἐξ Αἰγύπτου ὥρᾳ θέρους ἀνιστάμεναι, οὐκ ἀνεχόμεναι τὸ θάλπος, τείνασαι τὰς πτέρυγας, ὥσπερ ἱστία, φέρονται διὰ τοῦ ἀέρος εὐθὺ τῶν Σκυθῶν γῆς[10].

With respect to the migration at the opposite quarter of the year, and in the opposite direction, it was observed in Greece at least to take place at seed-time in the natural year; in Mæmacterion, according to Aristotle, in the Attic year: Ποιεῖται δ' ἀεὶ τὰ ἀσθενέστερα πρῶτα τὴν μετάστασιν καθ' ἑκατέραν τὴν ὑπερβολὴν, οἷον οἱ μὲν σκόμβροι τῶν θύννων, οἱ δ' ὄρτυγες τῶν γεράνων· τὰ μὲν γὰρ μεταβάλλει τοῦ Βοηδρομιῶνος, τὰ δὲ τοῦ Μαιμακτηριῶνος[11]—Ὅταν τὰ ἤθη τὰ τῶν Θρᾳκῶν καὶ τοὺς κρυμοὺς ἀπολιποῦσαι τοὺς Θρᾳκίους αἱ γέρανοι ἀθροίζωνται μὲν ἐς τὸν Ἕβρον . . . πειρῶνται τοῦ μετοικισμοῦ καὶ τῆς ἐπὶ τὸν Νεῖλον ὁρμῆς, ἀλέας τε καὶ τῆς χειμερίου συντροφίας πόθῳ τῷ ἐκεῖθι . . . σπείροντας δὲ τοὺς Αἰγυπτίους καταλαμβάνουσι, καὶ τρά-

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[3] Ælian, De Nat. Anim. iii. 13. cf. iii. 14. 23: xv. 9.

[4] Arist. Anim. Hist. viii. 12. 229. 12.

[5] Pliny, H. N. x. 31. cf. x. 33.

[6] Anacreon, Fragm. xxxvii. Εἰς τὸ ἔαρ, 6.

[7] Oppian, Halieut. i. 620.

[8] Statius, Thebais, v. 11.

[9] Val. Flacc. Argon. iii. 359.

[10] Maximus Tyr. xii. 3.

[11] Aristot. Anim. Hist. viii. 12. p. 230. 1.

*πεζαν ὡς ἂν εἴποις ἄφθονον, τὴν ἐν ταῖς ἀρούραις, εὑρόντες, εἶτα ἄκλητοι ξενίων μεταλαγχάνουσιν*[12]—*Τὰς δὲ γεράνους ἐπιφοιτᾷν τῷ σπόρῳ χειμῶνα μετρίως φερούσας καὶ τῆς τροφῆς ἕνεκα*[13]. And hence the crane, according to Porphyry[14], was sacred to Demeter.

*Αὐτὰρ ἐπεὶ κόσμηθεν ἅμ' ἡγεμόνεσσιν ἕκαστοι,*
*Τρῶες μὲν κλαγγῇ τ' ἐνοπῇ τ' ἴσαν, ὄρνιθες ὥς·*
*ἠΰτε περ κλαγγὴ γεράνων πέλει οὐρανόθι πρὸ,*
*αἵτ' ἐπεὶ οὖν χειμῶνα φύγον καὶ ἀθέσφατον ὄμβρον,*
*κλαγγῇ ταίγε πέτονται ἐπ' Ὠκεανοῖο ῥοάων,*
*ἀνδράσι Πυγμαίοισι φόνον καὶ κῆρα φέρουσαι*[15].

*Φράζεσθαι δ' εὖτ' ἂν γεράνου φωνὴν ἐπακούσῃς,*
*ὑψόθεν ἐκ νεφέων ἐνιαύσια κεκληγυίης·*
*ἥ τ' ἀροτοῖό τε σῆμα φέρει, καὶ χείματος ὥρην*
*δεικνύει ὀμβρηροῦ, κραδίην δ' ἔδακ' ἀνδρὸς ἀβούτεω*[16].

*Ὄρνιθος φωνὴν Πολυπαίδη ὀξὺ βοώσης*
*ἤκουσ', ἥ γε βροτοῖς ἄγγελος ἦλθ' ἀρότου*
*ὡραίου, καί μοι κραδίην ἐπάταξε μέλαιναν*
*ὅττι μοι εὐανθεῖς ἄλλοι ἔχουσιν ἀγρούς·*
*οὐδέ μοι ἡμίονοι κύφων' ἕλκουσιν ἀρότρου,*
*τῆς ἄλλης μνηστῆς εἵνεκα ναυτιλίης*[17].

*Πρῶτα μὲν ὥρας φαίνομεν ἡμεῖς ἦρος χειμῶνος ὀπώρας·*
*σπείρειν μὲν, ὅταν γέρανος κρώζουσ' ἐς τὴν Λιβύην μεταχωρῇ,*
*καὶ πηδάλιον τότε ναυκλήρῳ φράζει κρεμάσαντι καθεύδειν,*
*εἶτα δ' Ὀρέστῃ χλαῖναν ὑφαίνειν, ἵνα μὴ ῥιγῶν ἀποδύῃ*[18].

*Ἁ αἶξ τὸν κύτισον ὁ λύκος τὰν αἶγα διώκει,*
*ἁ γέρανος τὤροτρον*[19].

*Ἀρχομένου γὰρ σπόρου αἱ γέρανοι φαίνονται*[20].

*Χαίρει καὶ γεράνων ἀγέλαις ὡραῖος ἀροτρεὺς*
*ὥριον ἐρχομέναις· ὁ δ' ἀώριος αὐτίκα μᾶλλον.*
*αὔτως γὰρ χειμῶνες ἐπέρχονται γεράνοισι·*
*πρώϊα μὲν, καὶ μᾶλλον ὁμιλαδὸν ἐρχομένῃσι*
*πρώϊον· αὐτὰρ ὅτ' ὀψὲ καὶ οὐκ ἀγεληδὰ φανεῖσαι*
*πλειότερον φορέωνται ἐπὶ χρόνον, οὐδ' ἅμα πολλαὶ,*
*ἀμβολίῃ χειμῶνος ὀφέλλεται ὕστερα ἐργά*[21].

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[12] Ælian, De Nat. Anim. ii. 1.
[13] Dio Chrys. vi. 208. 40.
[14] De Abstin. iii. 5. 227.
[15] Iliad. Γ, 1.
[16] Hesiod, Opp. et Dies, 446.
[17] Theognis, 1197.
[18] Aristophanes, Aves, 709.
[19] Theocrit. Idyll. x. 30.
[20] Schol. in loc.
[21] Aratus, Diosemeia, 343. cf. Festus, 473–477.

*Ταὶ δ' ἐφέροντο*
*κλαγγηδὸν κραιπνῇσιν ἐειδόμεναι γεράνοισιν,*
*ὀσσομένης μέγα χεῖμα*[22].

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*Οἷαι δ' ἀφνειοῖο μετήλυδες ὠκεανοῖο*
*χείματος ἀμφίπολοι γεράνων στίχες ἠεροφώνων*
*κύκλον ἐποχμεύουσιν ἀλήμονος ὀρχηθμοῖο,*
*γειοπόνοις ἀρότῃσιν ἀπεχθέα κεκληγυῖαι*[23].

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Quales sub nubibus atris
Strymoniæ dant signa grues, atque æthera tranant
Cum sonitu, fugiuntque notos clamore secundo[24].

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Strymona sic gelidum bruma pellente relinquumt
Poturæ te Nile grues, primoque volatu
Effingunt varias casu monstrante figuras.
Mox ubi percussit tensas notus altior alas,
Confusos temere immixtæ glomerantur in orbes,
Et turbata perit dispersis littera pennis[25].

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Ceu patrio super alta grues Aquilone fugatæ,
Cum videre Pharon, tunc æthera latius implent,
Tunc hilari clangore sonant: juvat orbe sereno
Contemsisse nives, et frigora solvere Nilo[26].

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Nec tanta gelidi Strymonis fugiens nives
Permutat hiemes ales, et cælum secans
Tepente Nilo pensat arctoas nives[27].

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Pendula cum parvis moturæ bella colonis
Ingenti clamore grues æstiva relinquunt
Thracia, cum tepido permutant Strymona Nilo,
Ordinibus variis per nubila texitur ales
Littera, pennarumque notis inscribitur aër[28].

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Lastly, in explanation of the shepherd alluded to in the same passage of the Helene, whose pipe served as the signal and guide to the movements of the cranes, we may compare the following of Aristotle[29]: *Φρόνιμα δὲ πολλὰ καὶ περὶ τὰς γεράνους δοκεῖ συμβαίνειν· ἐκτοπίζουσί τε γὰρ μακρὰν, καὶ εἰς ὕψος πέτονται πρὸς τὸ καθορᾶν τὰ πόρρω, καὶ ἐὰν ἴδωσι νέφη καὶ χειμέρια καταπτᾶσαι ἡσυχάζουσιν. ἐτὶ δὲ τὸ ἔχειν ἡγεμόνα τε καὶ τοὺς ἐπι-*

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[22] Q. Smyrnæus, iii. 589.
[23] Tryphiodorus, 352.
[24] Æneid, x. 264. cf. vi. 312.
[25] Lucan, Pharsalia, v. 711. cf. vii. 832.
[26] Statius, Thebais, xii. 515–518. cf. iii. 526.
[27] Seneca Trag., Œdipus, 604.
[28] Claudian, xv. De Bello Gildonico, 474.
[29] De Anim. ix. 10.

apostrophe is addressed to them at seed-time; and the play consequently was opening at seed-time; and Menelaus had just come into Egypt at seed-time; and Troy had been taken just seven years before, at seed-time too *.

iii. The Electra. As a general intimation of the season of the year at which this play must be supposed to have begun, we may observe, i. That flocks were still feeding in the open air[g], Ægisthus was in the country, *ἱπποφορβίων ἔπι*, sacrificing to the Nymphs—

*Νύμφαις ἐπόρσυν' ἔροτιν*[h]—

or, as the Scholiast and Eustathius explain it[i], *ἑορτήν*: and, at the time of his death, he was in his garden, gathering myrtle branches for the occasion[k]. All these are characteristic of a time of the year, when the autumn, if not the summer, could not yet have been quite past.

To come however to more particular notices. The scene opens a little before morning, and the stars are apostrophised, but not the moon; which argues a time of the month when there was no moon in the morning at least—

*Ὦ νὺξ μέλαινα χρυσέων ἄστρων τροφὲ,*
*ἐν ᾗ τόδ' ἄγγος τῷδ' ἐφεδρεῦον κάρᾳ*
*φέρουσα πηγὰς ποταμίας μετέρχομαι*[l].

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*Νυκτὸς δὲ τῆσδε πρὸς τάφον μολὼν πατρὸς*
*δάκρυά τ' ἔδωκα καὶ κόμης ἀπηρξάμην,*
*πυρᾷ τ' ἐπέσφαξ' αἷμα μηλείου φόνου*[m].

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*συρίττοντας ἐν τοῖς ἐσχάτοις, ὥστε κατακούεσθαι τὴν φωνήν. ὅταν δὲ καθίζωνται, αἱ μὲν ἄλλαι . . . ὁ δ' ἡγεμὼν γυμνὴν ἔχων τὴν κεφαλὴν προορᾷ, καὶ ὅταν αἴσθηταί τι σημαίνει βοῶν.* Cf. Scholia in Aves, 1137: Suidas, *Γέρανοι λίθους καταπεπωκυῖαι*: Tzetzes, Chilias iv. 49: Histor. 120: Philostratus, Heroica, (Palamedes,) 684 A–C: Ammianus Marcellinus, xviii. 3.

* The Pleiads and Orion are both alluded to in the same apostrophe; the former as culminating or on the meridian, at the very time when these birds are supposed to be on their way to Greece. This too is an astronomical character of seed-time as coincident with the Πλειάδων δύσις. Migratory birds, especially such as the crane, the wildgoose, and the like, fly by night; and at the Πλειάδων δύσις in the sidereal year, when the Pleiads set just before sunrise in the morning, they rise in the evening at sunset, and pass the meridian at midnight.

[g] 408–412. 494, 495.
[h] 623–625.
[i] Od. B. 7. 1430. 36: *ὡς γὰρ ἑορτὴ ἔροτις Αἰολικῶς κ', τ. λ.*
[k] 777–789. 1134.
[l] 54. cf. 102. 77–79. 107, 108. 309.
[m] 90. cf. 509–515. 546, 547.

*Νῦν οὖν, ἕως γὰρ λευκὸν ὄμμ' ἀναίρεται,*
*ἔξω τρίβου τοῦδ' ἴχνος ἀλλαξώμεθα*[n].

Again, it opens at seed-time: as appears from the sequel of the lines last quoted—

*Ἦ γάρ τις ἀροτὴρ ἤ τις οἰκέτις γυνὴ*
*φανήσεται νῷν*[o]—

and still more clearly from the address of the *αὐτουργὸς* to Electra just before, when she was setting out to fetch water, and he to the field, for the labour of the day—

*Εἴ τοι δοκεῖ σοι στεῖχε· καὶ γὰρ οὐ πρόσω*
*πηγαὶ μελάθρων τῶνδ'. ἐγὼ δ' ἅμ' ἡμέρᾳ*
*βοῦς εἰς ἀρούρας ἐσβαλὼν σπερῶ γύας*[p].

Thirdly, it opens on the tenth of the month; as may be inferred from the words of Electra to Clytemnestra—

*Ἤκουσας οἶμαι τῶν ἐμῶν λοχευμάτων·*
*τούτων ὕπερ μοι θῦσον, οὐ γὰρ οἶδ' ἐγὼ,*
*δεκάτῃ σελήνῃ παιδὸς ὡς νομίζεται·*
*τρίβων γὰρ οὐκ εἴμ', ἄτοκος οὖσ' ἐν τῷ πάρος*[q]—

which the context shews to have been meant of the purification of Electra, so many days after the birth of the child; especially as compared with the previous allusion—

*Λεχώ μ' ἀπάγγελλ' οὖσαν ἄρσενος τόκῳ.*
*Πότερα πάλαι τεκοῦσαν, ἢ νεωστὶ δή;*
*Δέχ' ἡλίους, ἐν οἷσιν ἁγνεύει λεχώ*[r]—

and with that which occurs afterwards—

*Ἀλλ' εἶμι, παιδὸς ἀριθμὸν ὡς τελεσφόρον*
*θύσω θεοῖσι*[s]—

and therefore that *δεκάτῃ σελήνῃ* must have the sense of the tenth *lunar day*, not the tenth *lunar month*, and consequently the tenth of the month: though it may be very true that the child, on the latter supposition, must have been ten days old, and therefore that the ceremony of the *ἀμφιδρόμια*, on the tenth day from the birth, must have been in course on the same day too.

Laying these different intimations together, we infer from them that the Electra opens on the tenth of the seed month; which would be the tenth of Mæmacterion in the Attic calendar, and the tenth of the eleventh month in the Argive of Type iii. Nov. 7, only three days before the Metonic date of the *Πλειάδων δύσις*, in Euripides' time. And it might have been purposely made to open at this time, out of regard to the tradition that, at whatsoever time of the year Agamemnon had met with his death, at the same time afterwards Ægisthus and Clytemnestra met with theirs. If this was the anniversary of Agamemnon's death, it gives an additional significancy to the visit of Orestes to his tomb the night before, and the proceedings there, so particularly insisted on [t]: and in the apostrophe of Agamemnon himself, to Clytemnestra, at the time of the commission of his murder, it is plainly intimated that it was taking place at seed-time—

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[n] Ver. 102. [o] 104. [p] 77. [q] 1124. [r] 652. [s] 1132.

> Ὦ
> *σχέτλια, τί με, γύναι, φονεύεις, φίλαν*
> *πατρίδα δεκέτεσιν σποραῖσιν ἐλθόντ' ἐμάν* [v];—

just as the appearance of the Dioscuri, at the end of the play, after the vengeance inflicted on Ægisthus and Clytemnestra, is an argument that this too had taken place at the *Πλειάδων δύσις*: for the *Πλειάδων δύσις* was the season of storms, and they came on this errand just after one storm [x], and returned just before another [y].

In these three plays then, the Troades, the Helene, and the Electra, with regard to the time and circumstances of the capture of Troy, as supposed in each, Euripides' testimony is consistent with itself. The Helene takes up the Troades, and the Electra takes up the Helene; and the last thing mentioned in the Electra is the actual arrival of Menelaus and Helene, at Nauplia [z], from Egypt, with the announcement of which, as an event close at hand, the Helene ended. And the argument of the Helene is summarily but correctly recapitulated in those concluding lines of the Electra: so much so, that we might almost conjecture these two plays formed part of the same trilogia, and originally appeared together, though that is not known from testimony *.

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* We may take our leave of this play with the observation that if it really opened on the 10th of the eleventh month, the third day from that, the 12th of the same month, must have been the date of some feast of Hera in the same calendar: v. 169.

> Ἔμολέ τις ἔμολεν γαλακτοπότας ἀνὴρ
> Μυκηναῖος οὐριβάτας·

[t] Ver. 90–93: 509–515: 545, 546.

[v] 1151

[x] 1241.

[y] 1347.

[z] 1278–1281.

iv. The Rhesus. The scene of this play is the battle field of Troy, in the open air, and by night. The chorus consists of Trojan soldiers, and they are introduced, in the course of the play, addressing one another as follows—

Τίνος ἁ φυλακά; τίς ἀμείβει
τὰν ἐμάν; πρῶτα
δύεται σημεῖα καὶ ἑπτάποροι
Πλειάδες αἰθέριαι· μέσα δ' αἰετὸς οὐρανοῦ ποτᾶται[a].

The *prima facie* construction of this description is that the Pleiads were setting; and since it appears from what follows that the time was towards the morning, laying both these intimations together, it might seem to follow from these that the Pleiads were setting in the morning, and therefore that the action of this play too was laid at the Πλειάδων δύσις—

'Αὼς δὴ πέλας ἀὼς
γίγνεται[b]—

Θέλγει δ' ὄμματος ἕδραν
ὕπνος· ἅδιστος γὰρ ἔβα βλεφάροις πρὸς ἀοῦς[c]—

And yet this conclusion would be inconsistent with other notes which also occur in the play; particularly that shepherds were tending their flocks, in the open air, on Mount Ida, when Rhesus arrived the evening before[d], and that at this very time the nightingale was singing, and shepherds were piping too—

Καὶ μὴν ἀΐω, Σιμόεντος
ἡμένα κοίτας
φοινίας ὑμνεῖ πολυχορδοτάτᾳ
γῆρυϊ παιδολέτωρ μελοποιὸς ἀηδονὶς μερίμνας·

ἀγγέλλει δ' ὅτι νῦν τριταί-
αν καρύσσουσιν θυσίαν
'Αργεῖοι, πᾶσαι δὲ παρ' Ἥ-
ραν μέλλουσι παρθενικαὶ στείχειν.

But that this was the Heræa, the great feast of Hera, at Argos, cannot be inferred from this allusion: for this seems to be described as a festival enjoined for the occasion—the Heræa must have had a stated date; and besides, they appear to have been in course at a very different season of the year. The sacrifice to the nymphs however, going on at the time of the death of Ægisthus, might be something of regular occurrence on the tenth of the eleventh month.

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[a] Ver. 527.
[b] 535.
[c] 554.
[d] 266–295.

> ἤδη δὲ νέμουσι κατ' Ἴδαν
> ποίμνια· νυκτιβρόμου
> σύριγγος ἰὰν κατακούω[e].

Flocks and herds could not have been supposed to be still tended in the open air, as late as the beginning of the winter quarter; nor the nightingale to have been in full song, except in one of the months of spring *.

* Ὡς δ' ὅτε Πανδαρέου κούρη, χλωρηῒς ἀηδὼν,
καλὸν ἀείδησιν ἔαρος νέον ἱσταμένοιο,
δενδρέων ἐν πετάλοισι καθεζομένη πυκινοῖσιν [1]—

The time of the year, at which the nightingale was known to begin its song, is thus identified with that of the early spring; and that being the season too of universal green, when the trees are covered with leaves, and the fields with verdure, the scholiasts and commentators on the passage often explain the epithet, here applied to the nightingale, χλωρηῒς, as if derived from that circumstance. Χλωρηῒς ἀηδών ... ἢ διὰ τὸ ἐπὶ χλωρῶν καθέζεσθαι δένδρων [2]—Ἢ διότι ἐν ἔαρι φαίνεται ὅτε πάντα χλωρά [3]—Ἤτοι ἐν χλωροῖς διατρίβουσα· ἢ ἅμα τοῖς χλωροῖς φαινομένη· ἔαρος γὰρ φαίνεται [4]—Ἢ ὡς ἐν χλωροῖς, φασὶ, διατρίβουσα· ἢ ὡς ἅμα τοῖς χλωροῖς φαινομένη· ἔαρος γὰρ φαίνεται ... ἐν δὲ τῷ ἔαρος νεὸν ἱσταμένοιο δηλοῖ τότε μάλιστα ᾠδικὸν εἶναι τοὐρνίθιον [5].

In the Electra of Sophocles, the nightingale is called Διὸς ἄγγελος[6]; i.e. as the Scholiast explains, ὅτι τὸ ἔαρ σημαίνει—quoting Sappho also—

> Ἦρος ἄγγελος ἱμερόφωνος ἀηδών [7].

Aristophanes—

> Ἀλλ ὦ καλλιβόαν κρέκουσ'
> αὖλον φθέγμασιν ἠρινοῖς,
> ἄρχου τῶν ἀναπαίστων [8].

On which the Scholiast: Ἐαρινοῖς εἶπε· παρόσον τῷ ἔαρι ἐν τῇ Ἀττικῇ φαίνονται ἀηδόνες.

> Οὐκ ἂν τόν γε παραδράμοι ἐν μελέεσσιν
> ὄρνις, ἥτ' ἔαρος πολυανθέος ἐν πετάλοισι
> θρῆνον ἐπιπροχέουσα χέει μελίγηρυν ἀοιδήν [9].

> Πάντη δ' ὀρνίθων γενεὴ λιγύφωνον ἀείδει,
> ἀλκυόνες περὶ κῦμα, χελιδόνες ἄμφι μέλαθρα,
> κύκνος ἐπ' ὄχθαισιν ποταμοῦ, καὶ ὑπ' ἄλσος ἀηδών [10].

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[e] Ver. 546 sqq.

[1] Od. T. 518.
[2] Hesychius.
[3] Etym. M. Χλωρηΐς.
[4] Schol. Vulgaria.
[5] Eustathius, ad Od. T. 519. 1875. 39.
[6] Ver. 149.
[7] Cf. Suidas, in Ἀηδών.
[8] Aves, 682.
[9] Homer, Hymn. in Pana, 16.
[10] Anthol. i. 32. Meleager, De Vere, cx. 16.

It is clear then that the *prima facie* construction of the above passage cannot be the true one. The phrase, *Πρῶτα δύεται σημεῖα*, must have been intended to stand absolutely; and the rest of the sentence, *Καὶ ἑπταπόροι Πλειάδες αἰθέριαι*, to have been equally independent of the context. And the meaning of both together will be that while the primary signs, as they are styled, were setting, the Pleiads were mounting into the air, or rising. The signs, which are the first to rise at a given time, are the first to set also; and the point of the contrast, between these and the Pleiads, in this instance is, that as these were setting the Pleiads were rising. And the actual time of the night, as we have seen, having been towards morning, the true drift of these allusions is to indicate the season of the *Πλειάδων ἐπιτολὴ*, not of the *Πλειάδων δύσις*, when they were rising, not setting, in the morning twilight; and consequently, as referred to the Attic calendar, the month Munychion, or the

*Ῥύσια δ' Ἀπόλλωνι χοροὺς ἀνάγουσιν ἅπασαι*
*ἀρχομένου γλυκεροῦ νέον εἴαρος, εὖτ' ἐν ὄρεσσιν*
*ἀνθρώπων ἀπάνευθε κύει λιγύφθογγος ἀηδών*[11].

Jam veris comites, quæ mare temperant,
Impellunt animæ lintea Thraciæ:
Jam nec prata rigent, nec fluvii strepunt,
Hibernâ nive turgidi.
Nidum ponit, Ityn flebiliter gemens,
Infelix avis, et Cecropiæ domus
Æternum opprobrium[12]—

Non quæ verno nobile carmen
Ramo cantat tristis aëdon,
Ityn in varios modulata sonos[13].

We shall see by and by, from the fragments of the Phaëthon, that the song of the nightingale might very properly be supposed a characteristic of the month Thargelion, in Attica, though it must have begun to sing, no doubt, for that climate long before. Aristotle[14]:—Ἡ δ' *ἀηδὼν ᾄδει μὲν συνεχῶς ἡμέρας καὶ νύκτας δεκαπέντε, ὅταν τὸ ὄρος ἤδη δασύνηται· μετὰ δὲ ταῦτα ᾄδει μὲν, συνεχῶς δ' οὐκέτι. τοῦ δὲ θέρους προϊόντος ἄλλην ἀφίησι φωνὴν . . . καὶ τὸ χρῶμα μεταβάλλει, καὶ ἔν γε Ἰταλίᾳ τὸ ὄνομα ἕτερον καλεῖται περὶ τὴν ὥραν ταύτην. φαίνεται δ' οὐ πολὺν χρόνον· φωλεῖ γάρ.*

[11] Dionys. Perieg. 527.

[12] Horace, iv. xii. 1.

[13] Seneca Trag. Agamemnon, 670.

[14] De Anim. Histor. ix. 49=50. Pag. 305. 14.

month Thargelion, in one or other of which the stated Metonic date of the *Πλειάδων ἐπιτολὴ*, May 6, regularly fell out*. It confirms this conclusion, that besides those other allusions, descriptive of the spring or the summer, the play opens at a time of the year when the days are supposed to have been remarkable for their heat, and the nights for their cold[f]; which would be another characteristic of the last of the spring, or the first of the summer, months. And as it certainly begins in the tenth year of the war[g], and the capture of the city, for aught which appears to the contrary, might have been supposed to be at hand after the close of the action, the author of the Rhesus might have dated the capture in the month Thargelion; and very possibly a month only after the close of the action of his own play.

It is observable that, up to the arrival of Rhesus, the night is described as having been dark, and consequently destitute of moonlight[h]; but in the first address of the Chorus after that, the moon is alluded to as shining.

*Ἔγρεσθε, τί μέλλετε; κοιτᾶν*
*ἔγρεσθε πρὸς φυλακάν.*
*οὐ λεύσσετε μηνάδος αἴγλαν*[i]*;*

It is observable also that the night is supposed to have been divided into five watches[k]; and the Chorus to enter the

* Petavius considered this passage of the Rhesus, in his Variæ (Uranologium, v. xiv. 221), and calculated the ortus cosmicus of Lucida Pleiadum for the latitude of Athens, B. C. 431, to the 19° of Aries, and the ortus heliacus to the 19° of Taurus, May 15 or 16. And as it was further observable of the same passage, that it supposed the constellation Aquila to be on the meridian, or about the meridian, when the Pleiads were rising; he reduced that supposition too to the test of calculation, for the same year; and found that when Lucida Pleiadum was rising in the 19° of Taurus, Aquila, in the 29° of Sagittarius, would be some degrees past the meridian. These calculations would no doubt require to be revised and corrected at present; but they are abundantly competent to satisfy us that the phenomena, supposed to be visible in the heavens at the opening of this play, were such as would actually have been exhibited between midnight and sunrise, in the month of May, any time during the interval for which either Euripides or Sophocles was writing and exhibiting tragedy.

[f] Ver. 417.

[g] 444, 445.

[h] See 41: 69: 92–95: 222: 226: 284, 285: 613–615.

[i] 531.

[k] See the first, v. 536: the second, v. 540: the third and fourth, v. 540, 541. cf. 1–6: the fifth, v. 542–544. cf. 562–564.

stage at the end of the fourth. Each of these watches consequently must have contained 2 hours, 24 minutes, of Kairic time; and if we may assume that at this particular season the night was ten hours of mean time long (or that the sun set about 7 P.M. and rose about 5 A.M.) and the day fourteen, each would contain two hours of mean time; and the fourth watch would terminate and the fifth begin, about 3 A.M. And if the moon was shining at the ingress of this fifth watch, but not yet (for aught which appears to the contrary) at the ingress of the fourth, that would be demonstrative that it could not have been supposed to have risen before midnight, nor consequently to have been less than 22 or 23 days old at the opening of the play.

It is clear then that the author of this play must have purposely so contrived it that it should open at the second dichotomy, and yet in the month of the Πλειάδων ἐπιτολὴ too. If so, in all probability at the second dichotomy of the Attic month Munychion, in some year of the Cycle, whether of the old Octaëteris or of the Metonic Correction, in which the coincidence of the Πλειάδων ἐπιτολὴ with the second dichotomy was possible; (and there were various years in both cycles, with which that might be the case;) and about a month before the capture of Troy itself at the same lunar period of the next month, the second dichonomy of the month Thargelion. It is evident therefore that he must have dated the capture in the summer; and as in that respect the testimony of the Rhesus would be diametrically opposed to that of the Troades and that of the Helene, not to say that of the Electra also—this difference must do much to confirm the doubts concerning the authorship of this play, which appear to have been entertained even by the ancients[1]—Τὸ δὲ δρᾶμα ἔνιοι νόθον ὑπενόησαν, ὡς οὐκ ὂν Εὐριπίδου· τὸν γὰρ Σοφόκλειον μᾶλλον ὑποφαίνει χαρακτῆρα*. It is certain that, on this particular question of the time and season of the capture of Troy, the Rhesus would be as consistent with the Ajax and Philoctetes of Sophocles, as it is inconsistent with the Troades and the Helene of Euripides. On this point the reader will judge for

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* The Scholiast indeed, loc. cit. proceeded; Ἐν μέντὸι ταῖς διδασκαλίαις ὡς γνήσιον ἀναγέγραπται· καὶ ἡ περὶ τὰ μετάρσια δὲ ἐν αὐτῷ πολυπραγμοσύνη τὸν Εὐριπίδην ὁμολογεῖ. But the Διδασκαλίαι were not infallible;

[1] The Argument of the Rhesus.

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and Sophocles was as fond as Euripides, whenever the opportunity served, of bringing his astronomy on the stage: and so no doubt were all the poets of the ancient Tragic Drama.

Among the other circumstances of the structure and economy of this play, in which it differs from the rest of Euripides', one is the want of a prologue. Euripides' general custom was to give his plays an introduction; and generally too one so much alike in every instance, as to expose him to the ridicule of Aristophanes in his Ranæ, on that very account as much as anything. It is most probable this play never had a prologue; for though the Scholiast tells us there were two in circulation (*πρόλογοι δὲ διττοὶ φέρονται*), neither of them makes part of it at present: and one of them is pronounced spurious by himself, and the other is proved to have been so by its own evidence, if, as he tells us, it began with an allusion to the full moon, though no moon was recognised by the play itself but that of the second dichotomy, nor as rising until after midnight at least—
*Ὁ γοῦν δικαίαν ἐκτιθεὶς τὴν ὑπόθεσιν τοῦ Ῥήσου γράφει κατὰ λέξιν οὕτως·*

> Νῦν εὐσέληνον φέγγος ἡ διφρήλατος—
> cetera desunt.

With regard to the style and idioms of this play, and whether more in character with those of Euripides, or those of Sophocles; without descending into a minute examination of particulars in other respects, we may instance in one well known peculiarity of the diction of Sophocles; viz. the use of *βαιὸς* instead of *μικρὸς*—an instance of which occurs in this play too, v. 974—

> *Βαιὸν δὲ πένθος τῆς θαλασσίας θεοῦ*
> *οἴσω.*

Repeated examples of this idiom occur in Sophocles—

| | | |
|---|---|---|
| Ajax, 160. cf. | 292 | *μετὰ γὰρ μεγάλων βαιὸς ἄριστ' ἄν.* |
| Œdip. Col. | 397 | *ἥξοντα βαιοῦ κοὐχὶ μυρίου χρόνου.* |
| | 1199 | *ἔχεις γὰρ οὐχὶ βαιὰ τἀνθυμήματα.* |
| | 1653 | *ἔπειτα μέντοι βαιὸν οὐδὲ σὺν χρόνῳ.* |
| Trachiniæ | 335 | *αὐτοῦ γε πρῶτον βαιὸν ἀμμείνασ', ὅπως.* |
| Philoct. | 20 | *βαιὸν δ' ἔνερθεν ἐξ ἀριστερᾶς τάχ' ἄν.* |
| | 274 | *ῥάκη προθέντες βαιά.* |
| | 286 | *κἄδει τι βαιῇ τῇδ' ὑπὸ στέγῃ μόνον*<br>*διακονεῖσθαι.* |
| | 845 | *βαιάν μοι βαιὰν ὦ τέκνον*<br>*πέμπε λόγων φήμαν.* |
| Fragm. | 49 | Ἐν Αἰχμαλωτίσιν—<br>*ἔσπεισα βαιᾶς κύλικος ὥστε δεύτερα.* |
| | 255 | Ἐν Ἰνάχῳ—<br>*ἐκ κάρτα βαιῶν γνωτὸς ἂν γένοιτ' ἀνήρ.* |

In the extant plays of Euripides we question whether a similar instance himself. It is possible that Euripides might have had a different opinion of the time of the capture, at different periods of his life; but this play is very unlike any of his other plays, the genuineness of which has never been called in question: and we consider it much more improbable that he should have been inconsistent with himself on a point of ancient Greek history like this, than that a play, which exhibits so few, if any, of his characteristic peculiarities, should have been falsely ascribed to him.

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### xix. The Φαέθων.

A large portion of this play has been recovered Ex codice Parisino; and is now published among the fragments of Euripides: and from the images and allusions, presented in it, it is plainly to be collected that the action of this too must have been laid in the spring or the summer division of the year—the middle point between which was the Heliacal rising of the Pleiads.

> Μέλπει δὲ δένδρεσι λεπτὰν
> ἀηδὼν ἁρμονίαν,
> γόοις ὀρθρευομένα
> Ἴτυν Ἴτυν πολύθρηνον.
> Σύριγγας δ' οὐριβάται
> κινοῦσιν ποίμνας ἐλάται·
> ἔγρονται δ' εἰς βοτάναν
> ξανθᾶν πώλων συζυγίαι.
> ἤδη δ' εἰς ἔργα κυναγοὶ
> στείχουσιν θηροφόνοι,

can be found: and though Stobæus (iii. 241. xciv. 2.) has quoted a fragment of the Phrixus, ascribed to him, which at present is read as follows (Dind. Φρίξος, xi.)—

> Κρείσσων δὲ βαιὸς ὄλβος ἀβλαβὴς βροτοῖς,
> ἢ δῶμα πλούτῳ δυσσεβῶς ὠγκωμένον—

yet the old reading was simply *βιος*, and the present reading is a conjectural emendation of Scaliger's, and the original reading might just as probably have been *βέβαιος*, like that in a fragment of the Erechtheus (243. xciv. 10)—

> οὔτε γὰρ πλοῦτός ποτε
> βέβαιος ἄδικος—

or still more probably *ἄβιος*, in the sense of *sine violentia partus, innocens*—

> Κρείσσων δ' ἄρ' ἄβιος ὄλβος ἀβλαβὴς βροτοῖς.

*πηγαῖς τ' ἐπ' ὠκεανοῦ*
*μελιβόας κύκνος ἀχεῖ.*
*῎Ακατοι δ' ἀνάγονται ὑπ' εἰρεσίαις*
*ἀνέμων τ' εὐαέσιν ῥοθίοις,*
*ἄνα δ ἱστί·* *Cetera desiderantur.*

This description would have been most applicable to the Attic month Thargelion; and consequently (as the action must necessarily have opened in the morning) to some morning in the month Thargelion: which morning, another of these fragments (that which has been preserved by Longinus) appears to determine critically to the Heliacal rising of the Pleiads in this month. For among the directions which the Sun gives to Phaëthon, one is to make the Pleiads his guide, and to follow where they shewed the way. And as he must be supposed to have set out at sunrise, this will imply that the Pleiads too were rising at sunrise; and therefore that the action must have opened on the day of the Πλειάδων ἐπιτολή—

῞Ιει δ' ἐφ' ἑπτὰ Πλειάδων ἔχων δρόμον.

# CHAPTER II.

*Confirmation derivable from the Corrections of the different Types of the Octaëteric Cycle, attributed to different authors.*

## SECTION I.—*On the Octaëteric Corrections ascribed to Eudoxus.*

Εὔδοξος Αἰσχίνου, Κνίδιος, φιλόσοφος, Πλάτωνος ἡλικιώτης ... ἔσχε πρὸς ἀστρολογίαν ὑπερφυῶς, ἔγραψέ τε πλεῖστα τοῦ εἴδους τούτου, καὶ ὀκταετηρίδα· ἔτι δὲ καὶ δι' ἐπῶν 'Αστρονομίαν[m]—Κρίτων Νάξιος ἱστορικός. ἔγραψεν ὀκταετηρίδα, ἣν Εὐδόξου φασί[n]—Hanc 'Οκταετηρίδα vulgo creditum est ab Eudoxo Cnidio institutam[o]—Cujus (Dosithei scil.) maxime 'Οκταετηρὶς Eudoxi inscribitur[o]—

Nec meus Eudoxi vincetur fastibus annus[p].

Eudoxus enim ad cursum suum post octo annos solem reverti dixit, et esse annum magnum; G. Cæsar vero post quinquennium, quo peracto bis sextum esse præcepit: et melius annum visus est computasse[q].

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[m] Suidas, Εὔδοξος. [n] Suidas, Κρίτων. [o] Censorinus, De Die Nat. xviii.
[p] Lucan, Pharsalia, x. 187.

From these testimonies (and others, which might be produced,) it must be inferred that Eudoxus of Cnidus was known to have been the author of an octaëteris of some kind; and even passed with posterity as the inventor of that cycle. If this latter opinion is supposed to imply that he was the original author of that discovery, and the first who applied it to its natural use and purpose, in the regulation and administration of the calendar, it would be difficult to account for the origin of a persuasion so contrary to the matter of fact; contradicted by the personal experience and knowledge of every contemporary of Eudoxus himself: and equally so by the history of the calendar, as any where in existence among the Greeks, and as traced back ever so little beyond his time. But if it merely implies that he was the author of some modification, correction, and improvement of the well known cycle which had been so long in use—of some mode of combining, digesting, and administering both solar and lunar time in the old and familiar cycle so called; it may have had a foundation to rest upon: for the old Octaëteric cycle was capable of an improvement of that kind; and Eudoxus might have been the person who conceived and applied the idea of it. But it will also be implied in this case, that even the Ὀκταετηρὶς, ascribed to him, could have been nothing but one or other of the different Octaëteric Types of which we have hitherto been giving an account, in a new form and shape. And as no time could have been selected, for an improvement of this description, so naturally or so becomingly, as the close of some one of the proper Periods of these different Types, and the beginning of another; it is manifest that, in order to get at the bottom of this opinion of aftertimes, and to discover the matter of fact on which it was probably founded, we must begin with considering the chronology of the life of Eudoxus, and its relation to that of the different Periods of these different Types, the beginnings and endings of which, in four or five different instances (25 years asunder) respectively, could not possibly all have been comprehended in the lifetime of the same individual.

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[q] Schol. in Lucan. loc. cit.

## Section II.—*On the Chronology of the Life of Eudoxus.*

The personal history of Eudoxus of Cnidus, notwithstanding that celebrity among his contemporaries, and also with posterity, which gained him, according to Diogenes Laertius [r], the name of Ἔνδοξος, in addition to, or instead of, that of Εὔδοξος, is very imperfectly known; and the chronology of his life in particular appears to be full of difficulties. The only circumstantial account of it, which has descended to posterity, is that of Diogenes Laertius [s]; too brief and meagre to fill up the term of his natural existence, short as that was—and as a guide to its chronology too ill-digested to be implicitly trusted. Nor is it easy at present to supply its deficiencies from any other quarter. We shall therefore begin with assuming nothing with respect to this chronology; but taking simply the principal facts in the personal history of Eudoxus, (which may be considered even at present as well authenticated,) we shall endeavour, from the nature and circumstances and sequence of the facts themselves, to arrive at and fix their dates.

i. It may be taken for granted, in the first place, that Plato and he were contemporaries. According to Suidas [t], Eudoxus was the ἡλικιώτης of Plato; and, strictly understood, that would imply that he was of the same age: but as it is also another well attested fact of his history, that some time or other in his life, and for a longer or a shorter period, he was an hearer of Plato, and consequently a disciple, we may presume that, though a contemporary of Plato's, he must have been younger than he; and so much younger that he might without impropriety have stood to him in the relation of disciple. It will follow from this very natural presumption that, if Plato himself was not born before B.C. 428 [v], Eudoxus must have been born some years later: and that will dispose at once of certain dates even of his acme, which are found upon record; as Olymp. 88[x], B. C. 428, and Olymp. 89[y], B. C. 424.

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[r] viii. viii. § vi. 90, 91 ad fin.

[s] viii. viii.

[t] Supra, 612.

[v] Supra, page 31 sqq.

ii. It may be assumed too, on the authority of Sotion, ἐν ταῖς διαδοχαῖς, quoted by Diogenes[z], that Eudoxus first came to Athens, and first became an hearer of Plato's, at 23 years of age. When then did Plato first begin to open a school at Athens, and to receive disciples? Not before the death of Socrates at least[b]; up to which he himself was still the disciple of Socrates, and still only a learner: that is not before the 30th year of his age—for Plato was 30, B. C. 399, the year of the death of Socrates[c]. Nor yet immediately after the death of Socrates; nor until he had first studied himself for a time with Euclides, at Megara, and with Theodorus, at Cyrene, and with the Pythagoreans in Italy—all after the death of his own master Socrates, yet before he became himself a teacher at Athens also[b]. For these different visits to quarters, some of them so remote from Athens, and for these different studies under his various masters there, we cannot allow less than three or four years after the death of Socrates itself; so that if Plato was 30 at the death of Socrates, and three or four years immediately after engaged on these different travels and studies for his own improvement, he could not have returned to Athens, nor assumed the chair of the professor there, before the thirty-third or thirty-fourth year of his age, B. C. 395. It will follow that neither could Eudoxus have become his disciple before he was 33 or 34 years of age: and from these two facts laid together, one that Eudoxus first became the disciple of Plato at 23, the other that Plato did not begin to receive disciples until he was 33 or 34 years old, it will follow that there could not have been less than ten years' difference between their respective ages; and consequently that if Plato was born B. C. 428, Eudoxus could not have been born earlier than B. C. 418.

iii. It may be taken for granted also, as another well authenticated fact in the personal history of Eudoxus, that he had but a short life. Diogenes has left it on record upon what grounds the priests of Egypt, when he was admitted to a sight of the Apis at Memphis[d], predicted that such would be his fate; that he was destined to have a brilliant career, but a short one: nor do we know of any reason why we should not accept of Diogenes' own statement, that he died at 53. Ἐτελεύτησε δὲ τρίτον ἄγων καὶ ν′ ἔτος[d]. The only question would be, whether his 53rd year is to be understood of the 52nd only complete; or of the 53rd also nearly, though not altogether, complete. And here, it is to be observed, that Diogenes, in this instance of the life of Eudoxus, as in that of some other of his lives, has left an epigram of his own, founded on this fact in his history, that he died at 53; which he has exprest by his having seen 53 Pleiads—

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[x] Syncellus, 489. 5–18. cf. 491. 1.

[y] Eusebius, Chron. Arm. Lat. ii. 215. Jerome, In Chronico, Ol. 89.

[z] viii. viii. § ii. 86.

[b] Diogenes Laertius, iii. i. § viii. 6. Plato.

[c] Vol. i. 189 sqq.

*Διὸ καί οἱ ταχέως*
*ἦλθε μόρος, δεκάκις*
*πέντ' ἐπὶ τρεῖς*
*εἰσιδόντι Πλειάδας.*

Now this implies that Eudoxus, according to Diogenes' belief, lived to see either 53 risings or 53 settings of the Pleiads; and consequently must have been born either in the spring quarter of the year, after the month of May, or in the autumnal, after the month of November. If therefore the year of his birth was actually B. C. 418, the time of his birth in that year must have been either soon after the stated date of the heliacal rising of the Pleiads, May 6 or 7; or soon after that of the cosmical setting, Nov. 10. We are at liberty to assume that this latter was what Diogenes knew to have been the case; from which it will follow that, as the first cosmical setting, within the lifetime of Eudoxus, must have been that of B. C. 417, so the 53rd must have been that of B.C. 365; and if he lived to witness this too, he could not have died until after Nov. 10 at least, B. C. 365. It is clear then that his age at his death, in his 53rd year, is to be understood of his 53rd nearly complete. On the same principle, his 23rd year, in which he first became the hearer of Plato, must be understood of his 23rd nearly complete: that is, if he was born some time after Nov. 10, B. C. 418, he must have begun to be 23 some time after Nov. 10, B. C. 396.

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[d] viii. viii. § vi. 90.

and must have begun to be the disciple of Plato some time between Nov. 10, B. C. 396, and Nov. 10, B. C. 395.

iv. It seems to have been known to Diogenes, on good authority, that this first attendance of Eudoxus on Plato was of short duration, not more than two months[d]: from which it would necessarily follow that if it began in his 23rd year, it must have ended in it also; and in either case alike in this year, B. C. 395. But he would seem also to imply, as the reason of so short an attendance upon Plato, that Plato himself purposely discouraged him; so much so, that in after life, when his reputation was now established, and he came to Athens a second time, at the head of a numerous train of disciples, as if in resentment of the affront put upon him on the former occasion, he opened a school in opposition to Plato: *Ὑπὲρ τοῦ Πλάτωνα λυπῆσαι, ὅτι τὴν ἀρχὴν αὐτὸν παρεπέμψατο*[e]. But an act of ostentatious rivalry like this would have been altogether repugnant to the spirit and temper of Eudoxus; who, in addition to his other good qualities, appears to have been of a singularly amiable, and modest, and unassuming disposition: and other facts are on record, respecting both Plato and him, from which we may safely infer that no feeling of jealousy, like this, ever subsisted between them—none but that of mutual attachment and esteem, founded on a mutual appreciation of each other's worth. We need not hesitate therefore to reject this statement; which, after all, is mentioned by Diogenes himself only as an hearsay.

v. The true explanation of the shortness of this first attendance on Plato, is probably to be found in the fact that the year, in which they became acquainted with each other, was that in which both of them also first visited Egypt: for that both Plato and Eudoxus some time or other visited Egypt, is a well attested fact in the history of each[ee]. The question is only, Whether both together, or at different times; and whether in this year, B. C. 395, or in any later? With respect to which two questions, and first, that of the fact whether they were both in Egypt on the same occasion, it is asserted by Strabo [f], that they were both some time or other in Egypt together. and both studied at Heliopolis, in Egypt, together. And the same thing appears to be implied by Plutarch [g], where he tells us that both studied under the same master in Egypt, *Χόνουφις* of Memphis ; though Clemens Alexandrinus, it must be admitted, makes *Χόνουφις*, or *Κόνουφις*, the master of Eudoxus; and *Σέχνουφις*, of Heliopolis, the master of Plato [h]. Diogenes also calls the master of Eudoxus *'Ιχόνουφυ*, of Heliopolis [i]. If the same thing is not distinctly asserted by others of the ancients, it is not denied at least by any. We are justified consequently in accepting this fact of a visit to Egypt, and a residence in Egypt, of Plato and Eudoxus, both together, on the *positive* testimony of Strabo ; to which there is nothing to oppose but the *negative* testimony, that is, the silence, of the rest of our authorities

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[d] viii. viii. § ii. 87.

[e] Ibid.

[ee] Cf. Diodor. Sic i. 96: Plutarch, De Iside et Osiride, x: Diogenes Laertius, iii. i. 6: viii. viii. § ii. 87: Strabo, xvii. 1. 446: Clem. Alex. Strom. i. xv. § 69. p. 49. l. 19.

Secondly, with regard to the year of this visit (whether B. C. 395, or some later year). i. It is clear that Diogenes supposes the first visit of Eudoxus to Egypt to have taken place in the same year in which he first visited Athens, and became acquainted with Plato [k], and both in his 23rd year, B. C. 395. ii. It is clear from his account of the travels and studies of Plato, between the time of the death of Socrates and the time when he returned to Athens and opened the Academy there, that he supposed him to have visited Egypt the next thing after his visit to Italy [l]; and if the conclusion of that visit to Italy may be dated B. C. 396, this visit to Egypt, next in order to it, may be dated B. C. 395. iii. With respect to the time when Eudoxus himself must have been in Egypt, the fact to which we have already adverted, of his admission to the sight of the Apis at Memphis, and of what happened on the same occasion, on which the priests founded their prediction of his early death, is a strong ground of presumption, as we observed in our former work [m], that the Apis in question was a young animal of its kind, and that Eudoxus was probably at Memphis not some short time before the termination of the xxiiird Apis cycle, but not long after the beginning of the xxivth; the ingress of which would bear date Nov. 30, B.C. 398, and the first Natales Apidis (before which the Apis could not have been installed nor recognised at Memphis) May 29, B.C. 397; not much more than two years before the visit of Eudoxus to Egypt, if that really took place B.C. 395. And it is an equally strong confirmation of this conclusion, that while the cycle of *Sari*, xvi. in number, which he was allowed by the priests, while he was in Egypt on this occasion, to extract from their own longer cycle of the same kind, and to carry back with him to Greece, began with the tenth of the Egyptian series, October 15, B.C. 686, it stopped short with the xxvith, April 5, B.C. 397[n], which in our opinion is implicitly an argument that *this* Saros was still incomplete, all the time for which he himself was in Egypt, as it necessarily would be, if he came into Egypt at the earliest B.C. 395, and left it again at the latest B.C. 382.

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[f] xvii. 1.

[g] De Iside et Osiride, x.

[h] Strom. i. xv. § 69. p. 49. l. 19.

[i] viii. viii. § vi. 90.

[k] viii. viii. § ii. 86, 87.

[l] iii. i. 6.

[m] F. Catholici, ii. 571, 572.

vi. With respect to the length of this visit, supposing it to have been made in this year, B.C. 395; on that point the authority of Strabo, and that of Diogenes Laertius, at first sight appear to be directly at variance. According to Strabo, Eudoxus was in Egypt on this first occasion, 13 years[o]; according to Diogenes, one year and four months[p]. Now statements which differed so widely as these, if both were to be understood of one and the same occasion, and one and the same matter of fact, in the life of the same individual, could not possibly both be true. And though even on that supposition it might well be a question whether the authority of Strabo, as both a much older and a much more exact and careful writer than Diogenes Laertius, ought not to be preferred to that of Diogenes; it is by far the best mode of explaining and reconciling both these statements, to assume that they are not to be understood of the same occasion, and the same matter of fact, in the life time of the same individual; that Eudoxus was twice in Egypt; and that Strabo's statement of the length of his residence is to be understood of the first of these visits, and Diogenes' of the second. It is no objection to this explanation that Strabo says nothing about a second visit, nor Diogenes any thing about a first. It is absolutely necessary to the credit and authority of both, to make this distinction; and we hope to see by and by that there are good grounds for it. If however the visit attested by Strabo was really different from that which is recorded by Diogenes, there is no reason why the former should not be supposed, upon the authority of Strabo, to have lasted 13 years, as much as the latter, upon that of Diogenes, to have lasted one year and four months. The duration of the visit on either occasion is only a circumstance of it in each instance; and if we accept the principal fact on the credit of Strabo, we are bound to accept this circumstance of the fact on his authority also. And though it must be admitted that twelve or thirteen years would be a very long time for any Greek to have been resident in Egypt, and unexampled perhaps in any other case, yet we should consider that Eudoxus was still a young man at this time, not more than 23 years old, and eager and impatient for learning beyond those of his own age itself—and that at Heliopolis, and in the college of the priests there, he was at the very fountain head of all the philosophy, all the knowledge, all the information, both traditionary and self-acquired, of the ancient world; and that 12 or 13 years of his life could not have been better or more profitably spent than in studying under such masters, and in such a school. It is agreed too that he sojourned among the priests long enough to overcome their habitual reserve towards strangers, and especially Greeks, without which he never could have got access to any of their secrets; but only by becoming one of themselves, by assimilating himself to their manners and customs, and by implicitly adopting and strictly observing their peculiar regimen and rule of life. It is agreed also that he lived long enough with and among native Egyptians, to make himself a perfect master of the Egyptian language; to be able to translate their own works into Greek, and to write books himself in Egyptian. It is agreed too that he resided long enough at Heliopolis to make the house which he had occupied, and the observatory of which he had made use, there be remembered some hundreds of years after his time; so that they were still known, and still pointed out to strangers, even in Strabo's time. These different circumstances, which have been traditionally handed down, in connection with Eudoxus' visit to and presence in Egypt, taken all together, are a very strong body of presumptive proofs that he must have spent much more than one year and four months in that country, after he first came there, and before he left it again *.

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[n] F. Cath. iv. 103–130.

[o] xvii. i. 446, 447. cf. Gaza, ix. 292 E—293 A.

[p] viii. viii. § ii. 87.

vii. If then it may be assumed on the authority of Strabo, that on this first occasion he resided thirteen years in Egypt; if he came into Egypt B. C. 395, he must have left it again B. C. 383. Now this year, B. C. 383, was the last of the first of the proper periods of the third Octaëteric Type; that one of the types of the octaëteric cycle in general, which, as we have already had occasion to explain, appears to have been most simultaneously and most indiscriminately adopted among the Greeks, B. C. 542: and the only period of that description, which could have fallen out as yet during the life time, and within the personal observation, properly so called, of Eudoxus himself. And that being the case, it is an obvious inference from this fact that, if he foresaw and expected this coincidence, and especially if, with a view to it, he had already conceived the design, and digested the scheme, and arranged the details, of a new publication of the proper cycle of this third type; even if he was still in Egypt up to the last year of the first Period of this Type, B. C. 383, he would take care to be again in Greece, in time to publish and make known his amended edition of the cycle of the type, by the very first year of the next.

And here let the reader attend to the following coincidences; First, that, according to some of the authorities re-

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* The case is different with regard to Plato, even though he should be supposed to have accompanied Eudoxus in the first instance, and to have come into Egypt along with him, in B. C. 395. It is no where related of him that he was ever at the same pains to ingratiate himself with the priests as Eudoxus; or ever adopted the Egyptian habits and rules of life as implicitly as he did. We are at liberty therefore to suppose that though he might have come into Egypt along with Eudoxus, or have been in Egypt while he also was still there, he did not stay in Egypt as long as he: and we have his own authority for assuming that he could not still have been there as late as B. C. 389–388, if, as he tells us himself, it was about that time of his life that he paid his first visit to Sicily: see supra, page 78.

ferred to by Diogenes[o], the octaëteris ascribed to Eudoxus was digested in Egypt: secondly, that, as we ourselves have explained and proved at large[p], a cycle of full moons, or Panselena, each of them characterised by a lunar eclipse, was actually compiled by him in Egypt, on this first occasion, from B. C. 395 to B. C. 383; and from Egypt brought with him to Greece, this very year, B. C. 383. Thirdly, that as a means of comparing the course of true lunar time with civil or calendar, through such a cycle as the octaëteric, from the beginning to the end of its proper period, and as an infallible test of the relation of the one to the other, at every point of the period, nothing could be more indispensable, or more effectual, nothing more serviceable, than such an *instrumentum* as this. Laying these different coincidences together—the cycle of ecliptic full moons, 465 in number, actually compiled and digested by Eudoxus in Egypt—the traditionary account of the birthplace of his octaëteric correction, that even that was composed in Egypt—the critical relation of the beginning and the end of this visit to, and this residence in, Egypt to the decursus of the first of the periods of the third octaëteric cycle—(that he came into Egypt in the 148th year of this period, and left it again and returned home to Greece in the 160th—) and the relation of this period itself to the chronology of his own life, (that it was the first of the kind which could have been contemplated beforehand, as likely to fall out within the compass of his own experience and observation)—we may reasonably draw from them all the inference, to which they so naturally lead; That the octaëteris, ascribed to Eudoxus, was a republication, on a new and improved principle, of the proper cycle of this third type in particular; for the sake of which perhaps, as much as for any other reason, he purposely protracted his stay in Egypt from B. C. 395 to B. C. 383, (the very last year of its proper period,) and purposely returned to Greece, in that very last year, in order that the cycle, in its improved and amended form, might be made known to his countrymen in the first year of the next. If we are right in this conclusion, and his new octaëteric cycle was actually published B.C. 382, this year in all probability would somewhere or other be found upon record as a remarkable epoch in the chronology of his life; and it is very observable that this identical year, Ol. 99. 2, B. C. 383, appears in the Paschal Chronicon[q], as one of the dates of his acme itself; that is, of the time when he was best known, and his reputation was at its height.

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[o] viii. viii. § ii. 87.

[p] Fasti Catholici, iv. 103–130.

viii. With regard to any second visit of his to Egypt, (to the supposition of which we have already alluded, as the only satisfactory mode of reconciling Strabo and Diogenes Laertius,) that it does not rest upon our assumption merely, may be made to appear as follows.

We are told by Diogenes[r] that, when Eudoxus visited that country on the occasion recorded by himself, he took with him letters of recommendation (*συστατικὰς* scil. *ἐπιστολὰς*) from Agesilaus, king of Sparta, to the reigning king of Egypt, whom he calls Nectanabis. The reign of Agesilaus at Sparta extended from B. C. 398[s] to B. C. 362; and consequently over the whole of the period of the life of Eudoxus, from the twenty-first year of his age at least. But with respect to the kings who were reigning in Egypt in the course of this interval also; it appears from Diodorus Siculus that B. C. 400[t] the reigning king was Psammitichus, whom he calls a lineal descendant of the well-known king of that name; and B. C. 396[v] the reigning king was Nephereus, and B. C. 391[x], and B. C. 385[y], and B. C. 377[z], the reigning king was Acoris; and the name of Nectanebis as that of the reigning king appears first B. C. 374[a]. And Diodorus is so far confirmed in these different statements by Theopompus also, that according to the fragment of his xiith book, preserved by Photius[b], two Egyptian kings must have reigned about this time in succession, Pacoris, (whom Diodorus called Acoris,) and Nectenibis. Nor does any other Nectanebis appear in the Egyptian history of this period before the year of the expedition of Agesilaus to Egypt[c], at the time of which the reigning king was Tachos; but he having been forced to abandon the country and fly to Sidon, the Egyptians appointed two others, one of them called by Plutarch the Mendesian, the other Nectanebis; the latter of whom having been supported by Agesilaus, ultimately became sole king. But this was in B. C. 362, three years after the death of Eudoxus, and only a few months at the utmost before the death of Agesilaus also, which happened at the *Limen Menelai,* on the coast of Cyrene, towards the end of this very year, as he was returning home from this expedition itself.

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[q] 314. 11.

[r] viii. viii. § ii. 87.

[s] Cf. Mr. Clinton's F. Hell. Append. cap. iii. p. 205.

[t] xiv. 35.

[v] xiv. 79. 54.

[x] xiv. 98. 97. cf. 99. 103. 107. 109, 110.

[y] xv. 8, 9.

[z] xv. 29. 28.

[a] xv. 42. 41.

[b] Bibl. Cod. 176. p. 120. l. 12–34.

[c] Diodorus, xv. 90. 92, 93: Xenophon, Agesilaus, ii. 28–31: Plutarch, Agesilaus, xxxvi–xl: Cornelius Nepos, Agesilaus, viii. 2: Polyænus, ii. 1. Agesilaus, 22.

It is evident then that no letters of recommendation could have been given to Eudoxus by Agesilaus, addressed to any such contemporary king of Egypt as Nectanebis, preparatory to the visit in B. C. 395. And it ought to be well considered that Agesilaus at that time was only just come to the throne at Sparta, and Eudoxus was still a very young man, and as yet entirely unknown; so that neither was he likely to have asked for any letters of recommendation, nor Agesilaus likely to have given them, to any king reigning in Egypt at that time. But B. C. 374, or about that time, (whether a little before, or a little after,) when we know from contemporary history that a king so called was actually reigning in Egypt, we know also that the reputation of Eudoxus himself, as the first mathematician, geometer, and astronomer of his day, was at its acme among the Greeks, and the name and credit of Agesilaus, as the head of the confederacy against the Persians, was at its acme also. The influence and authority of Sparta itself, both at home and abroad, the prestige of its military superiority, and the implicit belief in the invincibility of its soldier-citizens, were never greater than just about this period, two years and upwards before the fatal battle of Leuctra: while as to the kings of Egypt, who had been in a state of rebellion against the Persians nearly an hundred years, exposed in the course of that interval to repeated invasions and attempts at their subjugation afresh, they never had stronger reasons for cultivating a good understanding with the Spartans and Agesilaus, in order to maintain their precarious independence, than just about this same time, when one of the most formidable of these attempts at their reduction had been or was about to be made. It was just as natural then, and just as probable, and just as much to be expected, that if Eudoxus was meditating a second visit to Egypt so much later in his life, and so much later in the reign of Agesilaus, as B. C. 376–B. C. 372, he would at that time ask of Agesilaus, and obtain from him also, letters of introduction, pressing the particular object of his visit on the reigning king, whosoever he was, as it would have been unnatural, unlikely, and not to be expected *a priori*, that he would do so B. C. 395.

ix. With respect then to the actual date of this second visit; if Nectanebis was reigning *de facto* B. C. 374, he might have been reigning B. C. 375 or B. C. 376—but let us assume that he began to reign only B. C. 374. If so, this visit of Eudoxus' to Egypt, accompanied with letters of recommendation to him, could not have been made before B. C. 374. But as to the question, whether it was actually made even then; we are first of all bound to consider that this year, B. C. 374. was the date of the most recent invasion of Egypt by the Persians, under the joint command of Pharnabazus and Iphicrates[d]: and that being not only the latest, but also the most formidable, of the attempts at the reduction of the country which had yet taken place, it is not to be supposed that Eudoxus, or any other of the Greeks from abroad, would have thought of visiting Egypt until the success of that attempt had been decided by the event. But that attempt too, like every one before it, having failed, and left the Egyptians apparently more secure, and more independent than before; there was no reason why either he, or any one else, might not have considered it both safe and seasonable to visit Egypt, as soon as the failure of this invasion also was generally known. And since it appears from Diodorus, that the invasion must have been going on in the first half of B. C. 374, before midsummer, and was protracted into the usual season of the Etesian winds, when the Nile began to rise, and its ultimate failure was due to the obstacles presented by the inundation, as much as to any thing else; it is manifest that its failure would be generally known long before the end of the year. It is conceivable then *a priori*, that if Eudoxus had any particular reason for visiting Egypt a second time, about this period of his history, he might have executed his purpose by going thither in the latter part of this year, B. C. 374; and would incur no danger to his personal safety, if he did so.

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[d] Diodor. xv. 42. 41. 43.

x. And as to the motives which he might have had to a second visit, and just about this period of his life; it is certain, as we have seen, that if he visited Egypt for the first time B. C. 395, the first proper Period of the Third Octaëteric Type was then drawing to an end; and it is equally certain that, if he visited Egypt the second time about this time, B. C. 374, the first proper Period of the Fourth Type must have been drawing to an end also. And as it appears that he made his first visit instrumental to a new and improved edition of the Cycle of the Third Type, it is just as possible and just as probable that he might intend this second visit to be preparatory to a new and similarly improved edition of that of the Fourth.

And here we may point out the following coincidence—That as the first proper Period of this Fourth Type must necessarily come to an end at the beginning of B. C. 357, if Eudoxus was again visiting Egypt at the end of B. C. 374, he was doing so just 16 years before the end of the Period in question. But what would be implied in that coincidence, even if he was? The answer to that question is the fact, which we hope to explain more fully by and by, but can only generally advert to at present—that the Octaëteric Correction, ascribed to Eudoxus himself, was digested in periods of 16 years, or two Octaëteric cycles; that the double Octaëteric cycle, in short, the ἑκκαιδεκαετηρὶς in contradistinction to the ὀκταετηρὶς, was first conceived and contrived by him; and that the improvement which he introduced *de facto,* into the nature and structure of the old Octaëteric Correction, was simply this, of combining in one and the same administration both the simple Octaëteric Cycle and the double Octaëteric Cycle at once. There were ten such cycles of 16 years in every Octaëteric Period of 160 years: and if the tenth of these, in the Period of the Fourth Type, was at hand B. C. 374, and Eudoxus was contemplating a revised edition of that Type, similar to what he had already published of the Third Type, and was going to Egypt with a view to collect materials for that purpose upon the spot, he would take care to be there by the ingress of that last cycle of 16 years, Jan. 2, B. C. 373. And as the materials, which he was likely to require for this projected edition of the Fourth Type, must have been altogether the same of which he had made use for that of the Third, it is not improbable that his principal motive, in going to Egypt a second time, was to obtain access a second time to the same Egyptian cycle of Sari, preserved at Heliopolis, as before; and that the object of the letters, which he carried with him, from Agesilaus to Nectanebis, was to get the latter to use his influence with the priests to gratify his wishes in that respect. The cycles of which he had made use on the former occasion, extended from the xth inclusive to the xxvth inclusive; but they had stopped short with the xxvith, the ingress of which bore date two years before his arrival in Egypt, April 5, B. C. 397: and it was precisely that cycle, and the next, the epoch of which was April 17, B.C. 379, of which he must have been most in need for an undertaking like this, of the revision and correction of the last 16 years of the fourth Octaëteric Period.

If we are right in these suppositions, and such a correction of the proper cycle of the fourth octaëteric type was actually prepared by him, from the materials collected at this time in Egypt, and was actually published in his name, at last, in B. C. 357; it was to be expected *a priori* that B. C. 357 also would be found upon record, as the date of his acme and reputation, just as much as B. C. 382. It is certain at least that the name of Eudoxus would become as well known to all who were interested in the use of the Fourth Type, by the publication of a correction of that type, B. C. 357, as it had done to all, who were interested in that of the Third, by the publication of the correction, B. C. 382. Accordingly the same Chronicon Paschale which dated his acme Ol. 99. 2. in the very year of that publication, B. C. 382, is found also dating his acme Ol. 105. 4[e]. in the very year of this, B. C. 357.

xi. If therefore we may assume that Eudoxus went to Egypt, on this second occasion, towards the end of B. C. 374, then if he staid there one year and four months from the time of his arrival, he must have left it again in the spring of B. C.

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[e] 317. 3–14.

372. After his return from Egypt, we lose in a great measure the thread of his history. Diogenes tells us merely, the rest of his life was past partly at Kyzicus, on the Propontis, partly at the court of Mausolus, satrap or king of Caria, and partly at Athens, which he supposes him to have revisited late in life, accompanied by a train of disciples. And to that fact, *per se*, we know of no objection ; but as to the final end of this second visit, in the lifetime of Plato, which Diogenes appears to insinuate, (viz. his desire to retaliate upon Plato, for the slight which he had put upon himself in early life, and to set up a school there in opposition to the Academy,) we have already declared our opinion of the degree of credit which is probably to be attached to it.

With respect to a visit of Eudoxus to the court of Mausolus, and to his residence there, for a longer or a shorter time, after his visit to Egypt, B. C. 371—372, and after his settlement at Kyzicus, and his opening a school there also, it was manifestly possible, within the limits of the rest of his life: for he returned from Egypt B. C. 372—and Mausolus was reigning in Caria from B. C. 377 or 376, to B. C. 353 [f], and Eudoxus himself was living as late as B. C. 365.

Besides these particulars of his subsequent history, mentioned by Diogenes, we collect incidentally from other notices, that he must have visited Sicily some time in the reign of the younger Dionysius, and after some visit of Plato's in the same reign also [g]; consequently not before B. C. 367 [h], yet before the visit of Helicon, of Kyzicus, in the same reign too [i], which we have already seen reason to determine [k] to B. C. 361. If so, and Eudoxus himself died B. C. 365, no year in his lifetime is open to this visit but B. C. 366. And even that, if he actually died himself the very next year, though still within the bounds of possibility, would be a very close and critical coincidence; especially if he died at home, as there is every reason to believe he did, and consequently after this return from Sicily *.

* Some visit of Eudoxus to Sicily, and some residence of his in Sicily, is implied in the Scholium subjoined to Ptolemy, De Apparentiis, Pag. 93

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[f] See our F. Catholici, ii. 577 note.

[g] Ælian, Variæ, vii. 17.

[h] Supra, Review of Metonic dates, p. 84.

[i] Cf. Plato, Ep. xiii. Opp. iii. iii. 498. 16 : Plutarch, Marcellus, xiv.

[k] Review of Metonic dates, supra, 87.

And here we cannot but observe that, according to Diogenes Laertius[1], the acme of Eudoxus itself was dated by Apollodorus in the very midst of the Olympiad, in the last year of which he must have died, Ol. 103, B. C. 368—364: and generally speaking that would seem to be inconsistent. But the chronological sense of the acme of a particular individual is that of the time when he was at the height of his reputation—not simply in the vigour and perfection of his natural faculties, both of body and mind; though generally speaking his acme in one of these senses would be his acme in the other also. The perfection of the faculties of the body must be dated as early as 25 or 30 years of age; but that of the faculties of the soul as late as 40 or 50: and Eudoxus having died at 53, in the full enjoyment of his intellectual faculties, and at the very zenith of his well earned reputation, Apollodorus was abundantly justified in dating his acme Ol. 103.

We shall conclude therefore with gathering together the principal events of his life, under their proper epochs, in the following brief synopsis.

## *Chronology of the Life of Eudoxus.*

| | B. C. |
|---|---|
| i. Birth of Eudoxus at Cnidus .. .. | 418 exeunte. |
| ii. First visit of Eudoxus to Athens, at 23 years of age .. .. .. .. | 395 |
| iii. First visit of Eudoxus to Egypt .. .. | 395 |
| iv. First return of Eudoxus from Egypt, after 12 years' residence there complete .. | 383 exeunte. |
| v. Octaëteric correction of Eudoxus, adapted to Type iii .. .. .. .. | 382 |
| vi. Second visit of Eudoxus to Egypt, with letters from Agesilaus to Nectanebis.. | 374 exeunte. |
| vii. Second return of Eudoxus from Egypt .. | 372 ineunte. |

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E. where it is said that *his* observations in particular were made in Asia, Sicily, and Italy, and (93 A) adapted to the parallel of 14½ and 15 hours. He might have visited Italy and Sicily at a former period of his life, between B. C. 382 and 374; and not for the first time on this occasion, B. C. 367 or 366.

[1] viii. viii. § v. 90–vi. 90

| | B.C. |
|---|---|
| viii. Eudoxus at Kyzicus, on the Propontis<br>— at the court of Mausolus<br>— again at Athens | 372—367 |
| ix. Visit of Eudoxus to the court of Dionysius the younger in Sicily | 366 |
| x. Death of Eudoxus at 53 years of age | 365 exeunte. |

### SECTION III.—*On the principle of the Octaëteric Correction ascribed to Eudoxus; and wherein its peculiarity consisted: and on the* Ὀκταετηρίδες *of later authors ascribed to him.*

With regard to the true nature and principle of the octaëteric correction ascribed to Eudoxus, and what there was to distinguish it from the old octaëteric cycle, with which the Greeks, both in theory and in practice, had been so long acquainted, so as to make Eudoxus pass with posterity even for the author of the cycle itself—in the absence of express testimony, we can propose only a conjecture. But it appears to us that the best and most probable explanation of such an opinion is simply the fact that he was the first who thought of digesting the octaëteric period in the double cycle of 16 years, or of dividing the same octaëteric period of 160 years into ten periods of sixteen years, instead of twenty of eight.

The simple octaëteric cycle, as we have often had occasion to explain, combined two systems of lunar time; one nominal or calendar, always the same with itself, and always attached to the same solar terms in the same years or months of the cycle; the other, the mean or true, always the same with itself too, as much as the other, and at corresponding points of successive periods attached to the same or proportionally the same solar terms also, but necessarily liable to rise from one solar term to another, at corresponding points of successive cycles in one and the same period. This tendency of true mean lunar time, in this form of the lunæsolar cycle, to advance on calendar or civil, we have called the Lunar Precession[m]; and as a tendency inherent in the constitution of the cycle, and necessarily liable to be made known by observation and experience in a very few years, it would be absurd to suppose that its discovery could have been reserved for the time of Eudoxus, 210 years later than the time of Solon, and the first introduction of the octaëteric correction itself. In fact, we have already produced proof, little less than demonstrative, that the correction of Solon itself was based upon the knowledge of this tendency in theory, and conformed to it in actual practice and administration, in that class of its details at least, the dates of which were cyclical, and followed the moon from the beginning to the end of the period.

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[m] See vol. i. 39.

It has also been seen that, from the nature of things, and the necessity of the case, the amount of this tendency, must have been at the rate of a day and an half every eight years, or three days every sixteen years; and that too was a fact which, wheresoever this cycle had been in actual use, not for a few years, but even for centuries, must have come to be well known and well understood at last. With respect then to these two things—the discovery of the error of defect, to which calendar lunar time in the Octaëteric cycle was constantly liable, and its amount, three days every two cycles, and the discovery of the correction necessary to compensate for it perpetually, and its amount also, three days every sixteen years—it would be absurd to suppose that either could have been left for the time of Eudoxus. But with respect to the actual application of this correction—to its actual distribution at equal intervals over the Octaëteric Period from first to last—to the actual administration of the Period, subject to this law of compensation perpetually—and to the actual combination of true mean lunar time with the same civil or lunar time in the calendar perpetually—the case was very different. It does not appear that this idea had yet occurred to any one before the time of Eudoxus; and yet if such was the idea, which he both conceived in theory, and realised in practice, it would entitle him to the name and praise both of the improver and perfecter of that which had long been known, and long in use, the old Octaëteric cycle, and of the author and inventor of that which before his time, whether known in theory or not, had never yet been realised in practice, the Hekkaidecaëteric cycle. The Hekkaidecaëteric cycle is only accidentally different from the Octaëteric: it is based upon the Octaëteric and presupposes its existence.

The invention of the Hekkaidecaëteris therefore in the order of time must have been later than that of the Octaëteris; and if Eudoxus was really the author of the former he could not have been really the discoverer of the latter. But the Hekkaidecaëteris is also the perfection of the Octaëteris. It is the proper form of true mean lunar time in calendar or civil in that kind of cycle perpetually; the form which true mean lunar time in the Octaëteric cycle necessarily assumes in terms of solar: and if the first invention of any thing is the discovery of its natural form and constitution, is the perfection of its nature, in short—in that sense, but only in that, as the inventor of the Hekkaidecaëteris, Eudoxus might be called the inventor of the Octaëteris also.

It is clear from Geminus' account of the octaëteric cycle itself, that it must have been treated and administered in his time, wheresoever it was in use, as an hekkaidecaëteric one; for, after explaining the proportion of noctidiurnal solar time to noctidiurnal lunar. as measured perpetually by the cycle of eight solar and eight lunar years in conjunction, (which is that of 2922 days and nights to 2923½,) he adds[n], *Δι' ἣν αἰτίαν καθ' ἑκάστην ἑξκαιδεκαετηρίδα πρὸς τὸν τῆς σελήνης δρόμον γ' ἐπάγονται ἡμέραι.* We have seen reason too to collect from the testimony of Cicero[o], that in his time also some of the lunar calendars of the Greeks must have been kept constantly true to the moon, by a rule of administration not such as could have had place in the Metonic calendar, (the exemption of certain days at stated times,) but one which was proper and peculiar to the octaëteric in the form of the hekkaidecaëteric, the intercalation of extra days, sometimes one, sometimes two, at certain times. And though we have assumed, and hitherto reasoned upon the assumption, that this distinctive property of the original octaëteric correction (the tendency of true lunar time therein to advance at a certain rate on calendar, civil, and nominal—the property of the Lunar Precession) must have been known in theory to Solon, and to the contemporaries of Solon, and not only known in theory, but taken into account in practice by the rule which appears to have been laid down from the first, that in certain particular cases even the calendar dates of public observances should follow the moon; it does not follow that a discovery, which was not wanted in the time of Solon, might not be necessary in that of Eudoxus, when so much of the knowledge of every kind which was once possessed had been utterly lost; and the science of astronomy in particular had every where fallen into decay. There is little reason to doubt that numbers of the contemporaries of Eudoxus in the remoter parts of Greece, among the insular communities, and in the distant colonies of Asia Minor, or elsewhere, (those in particular who had adopted the later types of the original Octaëteric correction,) were using the Octaëteric cycle with little or no knowledge of its principles or its construction, with little or no idea of the true relation of lunar and solar time, with no standard of lunar time itself except what they derived from the calendar, nor with any means of judging of or correcting the erroneous notices of the calendar itself, except from the testimony of the heavens and the evidence of their own senses: many too whom the tried and acknowledged utility, convenience, and certainty of the old Octaëteric cycle, simply administered according to its proper rule, in other respects, might long have reconciled to its acknowledged defects as a standard of lunar time. For the octaëteris, as we have often had occasion to observe, was as perfect a measure of true solar time, in the sense of Julian at least, as it was an imperfect and defective one of true lunar. Upon such communities among the Greeks of his own time as these, there can be no question Eudoxus was about to confer a public benefit, by proposing to furnish them with a ready contrived, a simple and intelligible digest of lunar time in terms of solar perpetually, requiring no radical or essential change in the cycle to which they had so long been accustomed, yet as close and true to the moon, as the Metonic correction itself; and accompanied by a rule of administration, which differed scarcely, if at all, from the old and familiar one; and in point of the ease and simplicity, as well as certainty, with which it was capable of being reduced to practice, was greatly superior to the intricate system of the Metonic correction.

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[n] vi. 36. B.

[o] Supra, pag. 469.

With respect indeed to the details of any such fresh digest of the old Octaëteric Cycle, which Eudoxus might have proposed at this time; we can speak only conjecturally at present. All we can venture to say is that, from the nature of the case, it must have proceeded on the principle of making ten cycles of sixteen years, out of the Octaëteric Period of 160 years, instead of twenty of eight; and it must have distributed the Lunar Precession, (liable to be generated in each of these cycles of sixteen years.) over the cycle in which it was generated itself; and therefore have given the calendar three *extra* days somewhere or other in each of these cycles. And though with regard to the actual times and places of the introduction of these extra days, various rules might have been devised, any of which would have answered the end proposed; the most natural, and the most likely *a priori* to have been suggested by the actual relations of true lunar time to civil in *this* form of the combination of both, would seem to be that of giving one extra day to the calendar at the end of the first eight years, and two more at the end of the second. Nor can there be any doubt that this simple modification of the proper rule of the Octaëteric Cycle —this addition of one day to the calendar reckoning at the end of the first eight years, and of two more at the end of the next, and so on alternately—is all that is necessary to qualify it for the true measurement of mean lunar time in terms of civil or solar perpetually; and that the Octaëteric Cycle, thus administered in the form of the hekkaidecaëteric, is one of the most perfect combinations of true mean lunar time with true solar in the sense of Julian, and the closest to nature, which could be devised. We ourselves have made use of it in our General Lunar Tables, to bring down the course and succession of true mean lunar time in relation to solar or Julian, from the beginning of things to the present day[p]. But it is attended with this inconvenience; that the epoch of the lunar reckoning, in terms of the solar, is necessarily liable to advance on itself three days every sixteen years; and if left to its natural tendency, it must follow the moon through the whole of the natural and the whole of the Julian year. It does not appear that either Eudoxus, or any other reformer of the vulgar Octaëteric Cycle, aware as they were of this tendency, and obliged as they were to humour it for a time, in their hekkaidecaëteric corrections, ever proposed to allow it to proceed to an indefinite extent; but only for the term of one Octaëteric Period, the period of 160 years—as familiar everywhere as the Octaëteric Cycle itself—in which, from experience and observation, it was well known that the Lunar Precession amounted to the full lunar month of 30 days.

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[p] See the Introduction to the Tables of the Fasti Catholici, Part ii. ch. i. sect. xi. 96–101. cf. also Fasti Catholici, i. 107. Diss. iii. ch. iii. sect. vi.

It follows that as every scheme of this kind must contain ten cycles of sixteen years, the date of every one of which must be three days higher than that of the one before it, the date of the last would be 30 days higher than that of the first. And the amount of the correction, required at this period of the decursus of the cycle, being this of the retrenchment of an excess of 30 days in the solar reckoning of the cycle—the mode of its application was suggested by the circumstances of the case; viz. to omit the last month in the continuous reckoning of the cycle, or to regard and treat the last month of the Period which was coming to an end as the first of that which was about to begin. And it would seem from Geminus[q] as if nothing more was usually done in such cases in his time; though we have shewn[r] that in strictness, at the end of the Period itself, in order to a perfect restoration of lunar and solar time to the relations of origination, a further correction would be necessary; viz. that of raising the solar epoch of the Period one day.

If then Eudoxus was actually the author of one hekkaidecaëteric correction of this kind, adapted to the Third Type of the old Octaëteric Cycle, and published in B. C. 382, and of another, adapted to the Fourth, and made public, though not in his lifetime, yet in his name after his death, B. C. 357; it is certain that each of these would require to be revised and corrected, and restored to the relations of origination, at the end of 160 years. And it would be only probable *a priori* that, when the proper time arrived, some of the astronomers of after-times would be found to have done that to these hekkaidecaëteric corrections, for the benefit of their own contemporaries, which Eudoxus himself had done with the original Octaëteric Cycle for the benefit of his; and consequently to have left cycles behind them which, as based upon those of Eudoxus, could not be considered really different from his, yet, as adjusted to the change of circumstances by themselves, would be so far their own, and both with their contemporaries and with posterity would bear their name. Accordingly, as we see from the testimonies produced above[s], two at least of this description are upon record; one, which Suidas ascribed to Crito, whom he called the historian, the other, which Censorinus attributed to Dositheus. And to these we may add a third, the fact of which is learnt from other sources, and which appears to have been the work of Eratosthenes.

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[q] Cap. vi. Uranolog. 36 C–37 D.

[r] Vol. i. 40.

With regard to the first of these, and its author, the historian Crito; we know nothing at present of either, except from this allusion in Suidas: but we should be of opinion that, if this was a republication of either of the corrections of Eudoxus, it was more probably of the second, B. C. 357, than of the first, B. C. 382; and therefore that its date in all probability was B. C. 197, exactly 160 years after B. C. 357. But with regard to that which Censorinus attributed to Dositheus; he himself observed upon it: Cujus maxime (ὀκταετηρὶς) Eudoxi inscribitur: from which in our opinion it may reasonably be inferred that, if any correction of this kind was published by Eudoxus, in his own name, and in his own lifetime, *this* of Dositheus was a republication of *that*. And as nothing of this kind could have been published by Eudoxus, except B. C. 382, at the end of the first Period of the Third Type of the vulgar Octaëteric Cycle, we conclude that this cycle of Dositheus' was a republication of that; and therefore in all probability in B. C. 222.

We know but little indeed of the personal history of this Dositheus: but that little is not inconsistent with this supposition of his having lived and flourished B. C. 222. We know from the frequent allusions to him in the De Apparentiis of Ptolemy, that he, as well as Eudoxus, must have been the author of a Parapegma, of some credit and authority; and from the Scholium subjoined to this compilation[t], we learn that his observations were supposed to have been made for the parallel of 11½ hours, and in what is there called (τῇ) Κολωνείᾳ: which in our opinion is to be understood with the

[s] Page 612.

[t] Uranologium, 93 D–E.

ellipsis of γῇ or χώρᾳ—implying that his Parapegma in particular was compiled in a quarter which took its name from some city called Κολωνὴ or Κολωναί. And though there were several places so called in ancient times, that which was here intended was most probably Κολωναὶ in Asia Minor, which the ancient geographers placed about 140 stades from the ancient Ilium * [v]. This Colonæ had disappeared before Pliny's time [x]; and it is commonly supposed that when Antigonus founded Alexandria Troas, (some time between B. C. 318 and B. C. 301,) its inhabitants and those of some other cities were transplanted to the new settlement. Dositheus therefore could not have been older than the foundation of Alexandria Troas, before which Colonæ was still in being; and in fact, there is every reason to believe he was the contemporary and acquaintance of two other celebrated astronomers, Archimedes of Syracuse and Conon of Samos [y]; and that the acme of them all in common could not be more correctly represented than by the date of the republication of Eudoxus' Cycle, at the end of the first Period, B. C. 222.

With respect to Eratosthenes, we are told by Suidas [z], that he was born Ol. 126, B. C. 276–272, and as he lived to be 80, and died at last not from any natural cause, but by voluntarily abstaining from food, in consequence of the loss of his eyesight—B. C. 222, at the close of the first Period of Eudoxus' correction, he could not have been more than 54 or 55 years of age, and probably was not so much; and he too might have been the author of a revised edition of that correction, B. C. 222. There is reason to infer from Geminus [a],

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* Its site has been identified by the British Consul at the Dardanelles, Mr. Calvert; 15 geographical miles from the modern Ilium, and 3 from Alexandria Troas: an oval eminence, forming the highest point, on the north, of a range of hills parallel to the sea coast, called at present Bashik Tepeh (Cradle-mound or hill) with a flat summit, 720 paces in length, 230 in its greatest breadth—which appears to have been the site of the ancient city: and upon this too there is another elevation, which constituted the Acropolis of Cleonæ. Here probably Dositheus made his observations.

[v] Smith's Dictionary of Classical Geography, in nomine.

[x] H. N. v. 32. Intus Colone intercidit. cf. Arrian, i. 13. B. C. 334.

[y] Cf. Scaliger, De Emendatione, i 58 C, D : ii. 71 C.

[z] In nomine.

[a] vi. 34 C.

that he was the author of a treatise *περὶ τῆς ὀκταετηρίδος*—(῾Ως καὶ ᾿Ερατοσθένης ἐν τῷ περὶ τῆς ὀκταετηρίδος ὑπομνήματι μνημονεύει—) which may be understood of a cycle of that kind of his own composition; and it may be collected from an allusion in the Isagoge of Achilles Tatius [b], (if we may only read *ὀκταετηρίδι* in that instance instead of *ὀκτωκαιδεκαετηρίδι*,) that this cycle of his too must have been connected with some similar cycle of Eudoxus. This cycle of Eratosthenes however, though published at the same time as that of Dositheus, and founded like it on the cycle of Eudoxus, could not have passed with posterity for so complete a republication of the cycle of Eudoxus, as that of Dositheus: the reason of which was probably (as we may see by and by) that Eratosthenes made a change in the epoch of the cycle according to Eudoxus, but Dositheus did not.

## SECTION IV.—*On the Solar Parapegma, and the Tetraëteris, of Eudoxus.*

That Eudoxus was the author of a solar as well as of a lunar calendar, appears from the frequent allusions to the Parapegma ascribed to him, which occur in Geminus, Columella, Pliny, Ptolemy De Apparentiis, Lydus, and others; and in fact is too well known a circumstance of his history to require to be proved. Nor in illustration of this calendar of his in particular need any thing fresh be said concerning the nature and object of these Parapegmata of antiquity in general, the principles on which they were constructed, or the uses and purposes for which they were intended. In all these respects Eudoxus' agreed with the rest; and the account which we have given of that of Meton [c], or of that of Columella, and Claudius Thuscus [d], is applicable to this of Eudoxus also: about which nothing can be said in contradistinction to the rest, except that while all professed to aim at the attainment of the same end, and in the same way, none were by common consent supposed to have attained it so successfully, and earned thereby so good a claim to the confidence of posterity, as these two, Meton's and Eudoxus's. A more curious and interesting inquiry in itself, and one more important to the object which we have had in view in the account thus given of the Octaëteric Corrections of Eudoxus, is this, That as some standard of the solar year must necessarily be assumed in every lunar and solar cycle, and the natural standard of the solar year in such a lunæsolar cycle as the Octaëteric is that of the mean Julian year; whether Eudoxus' solar standard was that of the mean Julian year? whether he brought back with him from Egypt the knowledge of the Julian year, and of the Julian Cycle of leap-year? and if he recognised any cycle of that kind, what was its epoch, and how did it proceed perpetually?

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[b] Uranologium, 139 E. § 19. cf. our F. Catholici, iv. 129.

[c] Vol. i. 438 sqq.

[d] Origines Kal. Italicæ, ii. 465–479. cf. iii. 142. 150–165.

Now that Eudoxus did bring with him from Egypt into Greece the knowledge of some solar cycle, which he had acquired in Egypt, and a cycle of four years, (a τετραετηρὶς,) such as would answer in all respects to the idea and description of the proper Julian Cycle of leap-year, may be inferred from various considerations.

i. Servius on the Æneid[e] observes, Annum autem primo Eudoxus, post Hipparchus, deinde Ptolemæus, ad ultimum Cæsar deprehendit: where, (to excuse the anachronism which makes Cæsar later than Ptolemy,) if the three last, Hipparchus, Cæsar, and Ptolemy, were discoverers, or thought to have been so, in this one department of natural science, the length of the solar year; it is to be presumed the first also, Eudoxus, must have been known, or supposed, to have been so too.

ii. It is observable that from the time of Eudoxus downwards, but not before, the Greek astronomers appear to have been under the habitual conviction of the length of the mean natural year, as the same with that of the mean Julian. Callippus was certainly of this opinion; and founded his correction of the Metonic cycle itself upon the implicit assumption of its truth: and Callippus was one of the school of Eudoxus. Geminus was still under the same conviction, not long before the Julian Correction itself[f]: though Hipparchus had already ventured to doubt of it, and in fact had done much to demonstrate its falseness. Yet even Hipparchus himself was at first a believer in the same assumption; and the long and patient course of observations to which he addressed himself at last, in order to prove or disprove its truth, was instituted at first to satisfy his own doubts.

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[e] v. 49.

[f] Cf. our F. Catholici, ii. 451. for the age of Geminus.

iii. The principle of the Julian reckoning was already known to the ancient Egyptians in theory, and already reduced to practice, from so far back as the epoch of their Phœnix Cycle; and they had two Types of the Julian calendar among them, in the time of Eudoxus, if not more, each of great antiquity even then—the Phœnix Type, of the epoch of Nov. 18, B. C. 1848, and the Sothiacal Type, of the epoch of July 22, B. C. 1350[g]. It is distinctly asserted by Strabo that thus much of their discoveries at least, if no more, was communicated by them both to Plato and to Eudoxus[h]; viz. the proportion of the mean natural year to the mean Julian, as that of equality: and we have already seen reason to conclude[i] that Plato was impressed with this conviction, when he wrote his work De Legibus, and that the form of the year which he tacitly prescribed in his Republic, (or rather recognised and took for granted, as already in use, without prescription,) was the mean natural in the sense of the mean Julian, as modelled and regulated conformably to the Sothiacal one of the Egyptians.

iv. Statements occur from the time of Eudoxus downwards, which recognise the Julian cycle of four years as mixed up and incorporated with the octaëteric cycle of eight years; into which indeed it must have entered even from the first, but of which it is not found, before his time, so distinctly recognised as an integral and constituent part. Indicandum et illud, tempestates ipsas ardores suos habere quadrinis annis, et easdem non magna differentia reverti ratione Solis; octonis vero augeri easdem, centesima revolvente se Luna[k]—Per octonos quoque annos ad principia motus et paria incrementa centesimo Lunæ revocantur ambitu, (sc. æstus.) augente ea cuncta[l]—Praeterea cum septem sidera ad eundem statum revertantur, ut quibusdam placuit, ut cujusmodi dies hodiernus fuerit in solis aut lunæ tempestate, ejusdem modi octavo anno sit futurus[m].

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[g] Cf. our F. Catholici, iv. 171–184 sqq.

[h] F. Catholici, iv. 198. 215.

[i] Ibid. 206.

[k] Pliny, H. N. xviii. 57. p. 190.

[l] Ibid. ii. 99 443, 444.

[m] Hyginus, Poet. Astron. iv. 2.

v. The ultimate origin of this doctrine is probably to be found in the following statement of Pliny's, concerning Eudoxus' opinion of the power and virtue of this cycle of four years: *De Ventis*—Omnium quidem (si libeat observare minimos ambitus) redire easdem vices quadriennio exacto Eudoxus putat; non ventorum modo, verum et reliquarum tempestatum magna ex parte: et est principium lustri ejus semper intercalari anno, Caniculæ ortu[n]. There is no various reading of the text in this instance, except that of *intercalario anno*, instead of *intercalari anno*. We collect from it that this cycle of Eudoxus, to which he attributed this particular influence of bringing back the same phenomena in the same seasons, was a cycle of four years; that is, a Julian cycle, properly so called, to which the Latin language gave the name of lustrum, as well as to the cycle of five years[o]: and that the epoch of this Julian cycle of Eudoxus was the Caniculæ ortus in the first year of the cycle, and after the introduction of the intercalary day. And this is sufficient to identify it with the Sothiacal cycle of the Egyptians; which was a cycle of four years also, and a proper Julian cycle of that kind too, and attached to the stated date of the Caniculæ ortus in Egypt perpetually[p].

If then some standard of the solar year was necessarily assumed in the octaëteric cycle of Eudoxus, no doubt it was this of the mean Julian, in the sense of the mean natural. And as some standard of the sidereal year also must have been assumed as the basis of his Parapegma, no doubt too it was that of the mean Julian, in the sense of the mean sidereal. In a word, it is a just and legitimate inference that the mean natural, or tropical year, the mean sidereal year, and the mean Julian year, in the opinion of Eudoxus (an opinion which he must have learnt from the Egyptians) were all the same; and it seems only reasonable to assume (though we do not know it from express testimony to the fact) that, if the proper cycle of his Julian year was attached to the heliacal rising of Sirius, his Parapegma bore date from that natural or sidereal term: and if his Parapegma, then in all probability his lunar cycle also—and both from the same epoch, the heliacal rising of Sirius in question, B. C. 382. It tends to confirm this conclusion, that the Julian calendar of Eudoxus, supposed to have been attached to this term of the heliacal rising of Sirius, B. C. 382, and to have had its proper cycle of leap year attached to the same term perpetually, would fall in with the 243rd cycle of the same kind, in the Sothiacal calendar of the Egyptians, attached to the same sidereal phenomenon also. and regularly brought down from B. C. 1350 to B. C. 382.

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[n] H. N. ii. 48. 336.

[o] Cf. our Origines Kal. Italicæ, ii. 252 sqq.

[p] Cf. our F. Catholici, iv. 174 sqq.

The Egyptian date indeed of the rising of Sirius, in the first year of the Sothiacal cycle of leap year, was July 21 [q]; that of Eudoxus, as it appears from Geminus, was July 23: and it may be doubtful at first sight whether his Parapegma would be attached to July 21 or July 23, B. C. 382. But this it is evident would be a matter of indifference; but not so, whether if his solar Parapegma at this time was attached to July 23, or July 21, his lunar cycle, published along with it, should be attached to the nearest lunar term to either of these solar dates. For this reason we incline to the opinion that the epoch of Eudoxus' lunar cycle, published this year, was transferred to the first of the seventh month, July 4, instead of that of the first, January 8. And this may explain the distinction between Dositheus' republication of that cycle, B. C. 222, and Eratosthenes', published at the same time, alluded to supra; viz. that Eudoxus' cycle having been attached to the seventh month, Dositheus' was so too; Eratosthenes', for some reason or other, was again attached to the first. And the reason why it was so may have been, that it was no doubt published in Egypt, and in an Egyptian scheme of this kind, Eratosthenes appears to have thought it necessary to pay particular attention to the incidence of the Egyptian Isia; which having, as he seems to have been aware, fallen originally on the autumnal equinox [r], and afterwards on the summer solstice—B. C. 222, at the expiration of the first period of Eudoxus' cycle, and the beginning of the second, were fast approaching to a coincidence with the winter solstice. Eudoxus' date of the winter solstice, as it appears from Geminus also, was Dec. 28; and B. C. 222,

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[q] Cf. F. Catholici, iii. 39–54.

[r] See our F. Catholici, iii. 134 sqq.

Nab. 526, the Egyptian Isia were falling on Jan. 2; and B.C. 205, Nab. 544, would begin to fall on Dec. 28, Eudoxus' date of the solstice itself[s].

## CHAPTER III.

### *Confirmation derivable from Calendars not yet noticed.*

### SECTION I.—*From the Calendar of Cos, or the Calendar recognised in the works ascribed to Hippocrates.*

It is not necessary, in order to the discovery of the nature of the calendar, which may be recognised in the remains of Hippocrates, to enter on the preliminary question which of the works, ascribed to him, are genuine, and which are not. In the opinion of the most competent judges of antiquity, most of those, which are still in existence under his name, were either his own, or the productions of contemporaries; his disciples, his sons, or his sons in law: and for the purpose which we have in view (the discovery, if possible, of the nature and form of the calendar in his time, or in the times immediately after his) all that is necessary is contemporary testimony.

We propose therefore briefly to enquire into this point; and what allusions may be found to this subject of the calendar, and of the reckoning of civil time, in any of the works which are commonly ascribed to Hippocrates. First, then, it appears that in the time of the author, or authors, of these works every month in the calendar was nominally a month of thirty days: Ταῦτα *μὲν ποιέειν χρὴ τριήκοντα ἡμέρας· τῷ δὲ δευτέρῳ μηνὶ κ̀, τ. λ*[t]—*Ὅστις δὲ εἴωθε τοῦ μηνὸς δὶς ἐξεμέειν, ἄμεινον ἐφεξῆς ποιέεσθαι τοὺς ἐμέτους ἐν δύσιν ἡμέρῃσι μᾶλλον ἢ διὰ πεντεκαίδεκα*[v]—Ἔστι *δὲ καὶ τόδε* (corr. *τῷδε*) *τεκμήρασθαι* (scil. *ὅτι ὁ αἰών ἐστι τοῦ ἀνθρώπου ἑπταήμερος*[x]). *τὸ παιδίον ἑπτά-*

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[s] Cf. Geminus, vi. 33 B–34 D. and our F. Catholici, ii. 446–451.

[t] ii. 449. 3 from the bottom. Περὶ *τῶν ἐντὸς παθῶν*: cf. 450. 4 and the last line: 451. 4.

[v] i. 621. 12. Περὶ *διαίτης ὑγιεινῆς*. See the comments of Galen on this rule, iii. 358 .9. De Usu Partium, v. 4: xv. 207. Comm. on the Treatise itself, § 21.

[x] Cf. i. 441. 2. Περὶ *σαρκῶν*: 442. 3.

*μηνον (γόνον) μόνον γενόμενον λόγῳ γεγένηται καὶ ζῇ, καὶ λόγον ἔχει τοιοῦτον καὶ ἀριθμὸν ἀτρεκέα ἐς τὰς ἑβδομάδας* (i. e. 30 × 7 or 210 days, 30 weeks). *ὀκτάμηνον δὲ γενόμενον οὐδὲν βιοῖ πώποτε* (30 × 8, or 240 days, being no multiple of *seven*.) *ἐννέα δὲ μηνῶν καὶ δέκα ἡμερέων* (30 × 9 + 10 = 280 days = 40 weeks) *γόνος γίγνεται καὶ ζῇ, καὶ ἔχει τὸν ἀριθμὸν ἀτρεκέα ἐς τὰς ἑβδομάδας*[y].

And yet this mode of reckoning the length of every month was something peculiar to the rule of the Greek calendar: *Ἃ δεῖ εἰδέναι εἰς τὸν ἑπτάμηνον. ἢ ἀπὸ γυναικείων ἀριθμητέοι οἱ ἐννέα μῆνες ἢ ἀπὸ τῆς ξυλλήψιος, καὶ εἰς* (leg. *ἐν*) *ἑβδομήκοντα καὶ διακοσίῃσιν* (30 × 9, or 270 days) *οἱ Ἑλληνικοὶ μῆνες γίνονται, καὶ εἴ τι προσέτι τούτοισι*[z]. This last observation is explained by the fact that, according to Hippocrates, the entire period of gestation was ten days more than 270, i. e. 280 days. Why then is this mode of reckoning 270 days, as equivalent to nine months of 30 days each, called the Greek mode, if the calendar at this time, though in form and appearance solar, and having each of its months nominally 30 days long, was not in reality lunar, with every other month at least less than 30 days in length? It confirms this explanation that the idiom of these works, in speaking of the subdivisions of the month, is the usual one with Greek writers for the divisions of their own lunar month: as, for instance, *Καὶ ἕτερά γε διὰ τριῶν μηνῶν, καὶ τοῦ τρίτου ἱσταμένου ἢ φθίνοντος οὐδὲν διαφέρει*[a]: and again[b], where the *νουμηνίη* is spoken of by name as *ἡμέρη μία*, the first day of the month, and the *διχομηνίη* as the same, the fifteenth day of the month.

ii. It may clearly be collected from the testimony of these works, that the length of the solar, in the sense of the natural, year in the time of these authors, was supposed not to have been less than 365 days, and that of the lunar month not less than 29 days 12 hours: *Οὐ δύναται δὲ ὅλῃσιν ἡμέρῃσιν*

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[y] i. 442. 10. Περὶ σαρκῶν. cf. 442. 13–444, the end of the treatise: 455. 6, 7. Περὶ ὀκταμήνου: ii. 633. 6. Γυναικείων α′. 634. 13: 637. 12. cf. also Opp. ii. 23. 12. Περὶ τροφῆς: Ἐς τύπωσιν λε′ ἠέλιοι, ἐς κίνησιν ο′, ἐς τελειότητα σι′ . . . ἐς ἔξοδον σι′ (210 days, seven months of 30 days each) . . . ἐς τελειότητα τ′, 300 days, ten months of 30 days each. See the Commentary of Galen, xv. 407. § 20: xvii. Part i. 440, 441 in Epidem. B. iii. 29: 448, 449. Ibid. 32.

[z] iii. 454. 4. Epid. B. sectio tert. Cf. Galen, on this passage also, xvii. Pars i. 449, 450. In Epidem, B. iii. 33.

[a] ii. 171. 10. Περὶ νούσων πρῶτον.

[b] i. 459. 4. Περὶ ὀκταμήνου. cf. 11.

*οὐδὲν τουτέων ἀριθμεῖσθαι ἀτρεκέως. οὐδὲ γὰρ ὁ ἐνιαυτός τε καὶ οἱ μῆνες ὅλῃσιν ἡμέρῃσιν πεφύκασιν ἀριθμεῖσθαι*[c]—*Οὐ δύναται δὲ ὅλαις ἡμέραις οὐθὲν τουτέων ἀριθμεῖσθαι ἀτρεκέως. οὐδὲ γὰρ οἱ ἐνιαυτοί τε καὶ μῆνες ὅλαις ἡμέραις πεφύκασιν* (*ἀριθμεῖσθαι*[d]). The natural year and the natural month are meant[e]: the latter of which, it was well known, contained a fraction of time less than 30 days complete, and the former, it might have been supposed, a fraction more than 365. But there is reason to conclude that the authors of these works, whosoever they were, assumed the length of the natural year at neither more nor less than 365 days; the actual length of the primitive solar year of the Greeks, from which their actual lunar year, any where in use among them, originally at least was derived. Such at least was the length of half the year, from one of the tropics to the other, recognised by Polybus, the son-in-law of Hippocrates; 182 days 12 hours[f]. It appears however very plainly from the treatise *Περὶ ἑπταμήνου*[g]: *Οἱ δὲ ἑπτάμηνοι γίνονται ἐκ τῶν ἑκατὸν ἡμερέων καὶ ὀγδοήκοντα καὶ δύο, καὶ προσόντος μορίου* (leg. *προσόντος καὶ μορίου*, i. e. 12 hours). *ἢν γὰρ τοῦ πρώτου λογίσῃ μηνὸς πεντεκαίδεκα ἡμέρας*, (i. e. suppose conception to have taken place on the 15th of the first month,) *τῶν δὲ πέντε μηνῶν ρμʹ καὶ ζʹ καὶ ἥμισυ ἡμέρας· ἢν γὰρ* (rescribe *ἐν γὰρ ἡμέραις*) *ἑξήκοντα μιῆς δεούσαις ἡμέρης ἐγγύτατα δύο μῆνες ἐκτελεῦνται· οὕτως οὖν τούτων ἐόντων, ἐς τὸν ἕβδομον μῆνα περιγίνονται ἡμέραι πλεῖον ἢ εἴκοσιν, ἥμισυ τοῦ ἐνιαυτοῦ, καὶ τῆς ἡμέρης τοῦ μέρους τῷ μέρει ποστῷ γινομένῳ*—which last words are corrupt; but may be amended by reading, *Καὶ τῆς ἡμέρης τοῦ μέρους τῷ ποστῷ προσγενομένου*: that is, half of the year, when this part, or half of the day, also had been added to the sum; 182 days + 12 hours.

This calculation was founded on two assumptions; i. That the proper length of the natural year was 365 days, and the half of it 182 days 12 hours. ii. That the proper length of the natural month was 29 days 12 hours; and that of two months in sequence was 59 days. On these suppositions, all is clear.

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[c] i. 111. 18. *Προγνωστικόν.*

[d] i. 138. 2. *Περὶ κρισίων.*

[e] Cf. Galen, ix. 928: 929–933. 17. *Περὶ κρισίμων ἡμερῶν*, iii. 9: xviii. Pars ii. 240, 241. In Hipp. *Προγνωστικὸν*, iii. 4.

[f] Plutarch, De Placitis, v. *ιηʹ*: Galen, xix. 333. 2. *Φιλοσοφ. ἱστορ.* 34.

[g] i. 444. ad principium.

Assuming conception on the fifteenth of the first month, the author reckons—

| | | | |
|---|---|---|---|
| In the first month, | .. | 15 days | |
| In the next five months, | .. | 147 | 12 hours |
| In the first six months, | .. | 162 | 12 hours |
| Add over and above of the seventh, | | 20 | |
| | | 182 | 12 hours. |

Consequently the precise time in the seventh month the middle point of the 21st day; 12 hours more than the twentieth day of that month complete; yet from conception, 182 days 12 hours, half the natural year *.

That the reckoning proceeded from the fifteenth of the first month, as the day of the conception, appears further from the following passage[h]: *Φασὶ δὲ τοὺς ὀγδόους τῶν μηνῶν καὶ χαλεπώτατα φέρειν τὰς γαστέρας, ὀρθῶς λέγουσαι. ἔστι δὲ ὄγδοος μὴν οὐ μόνον χρόνος οὗτος, ἀλλὰ καὶ ἡμέραι πρόσεισιν ἀπὸ τοῦ ἑβδόμου μηνὸς καὶ τοῦ ἐννάτου καὶ ἀπὸ τοῦ ἐνιαυτοῦ* (leg. *ἑνδεκάτου* †). The reckoning of the eighth month simply by the calendar, (and if that of the eighth, that of any other also,) and by the interval or period of the gestation, is thus distinguished. Conception being dated on the fifteenth of the first month by the calendar, the seventh month of gestation would be made up of the last fifteen days of the seventh month by the calendar, and the first fifteen of the eighth; the eighth month, of the last fifteen days of the eighth, and the first fifteen of the ninth: and so on, down to the tenth of gestation, made up of the last fifteen days of the tenth month of the calendar, and the first fifteen of the eleventh. It is added[i], Κατ' *ἐμὲ καὶ τὸ μέρος ἐν τοῖς ἕνδεκα μησὶ μής ἐστιν, ὥστε τοῦτον οὐ μνημόνευτον εἶναι*: corr. *ὥστε τοῦτο εὐμνημόνευτον εἶναι*: or, *εὖ μνημονευτέον εἶναι.* It was the same thing as saying, that when he spoke of the eleventh month, he reckoned a part, and under any circumstances a very small[k] part, of a month, equivalent to a month.

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* Clemens Alex. Strom. vi. xvi. 139. pag. 185. 7: *Φασὶ δὲ καὶ τὸ ἔμβρυον ἀπαρτίζεσθαι πρὸς ἀκρίβειαν μηνὶ τῷ ἕκτῳ, τουτέστιν ἑκατὸν ἡμέραις καὶ ὀγδοήκοντα πρὸς ταῖς δύο, καὶ ἡμίσει, ὡς ἱστορεῖ Πόλυβος μὲν ὁ ἰατρὸς ἐν τῷ περὶ ὀκταμήνων, Ἀριστοτέλης δὲ ὁ φιλόσοφος ἐν τῷ περὶ φύσεως.* Polybus is quoted by Aristotle, De Anim. Hist. iii. 3. ad princip.

† Cf. Aristotle, De Animalibus, vii. 4: 203. 29: *Καὶ γὰρ ἑπτάμηνα καὶ ὀκτάμηνα καὶ ἐννεάμηνα γίνεται, καὶ δεκάμηνα τὸ πλεῖστον· ἔνιαι δὲ ἐπιλαμβάνουσι καὶ τοῦ ἑνδεκάτου μηνός*—Ibid. 204. 16: *Τὸν αὐτὸν δὲ τρόπον δοκεῖ λανθάνειν καὶ ὅσα φαίνεται τίκτεσθαι πολυχρονιώτερα τῶν ἕνδεκα μηνῶν. καὶ γὰρ τούτων ἡ τῆς συλλήψεως ἀρχὴ λανθάνει τὰς γυναῖκας.* Cf. A. Gellius, iii. 16.

[h] i. 446. 13.

Now all this is best explained by the treatise, Περὶ *ὀκταμήνου*; which was the work of the same author as that of this Περὶ *ἑπταμήνου*, whether Hippocrates himself, or Polybus, his son-in-law. We are enabled to collect from it that while these ten months of gestation, by the calendar might be assumed nominally at 300 days, in strictness they were equivalent only to 295[l]: Οἱ *δὲ δεκάμηνοι τῶν τόκων καὶ ἑνδεκάμηνοι ἐκ τῶν ἑπτὰ τεσσαρακοντάδων τὸν αὐτὸν τρόπον γίνονται καὶ* (*as*) *ἐκ τοῦ ἡμίσεως τοῦ ἐνιαυτοῦ οἱ ἑπτάμηνοι. ταῖς γὰρ πλείσταις τῶν γυναικῶν ἀναγκαῖόν ἐστιν ἐν γαστρὶ λαμβάνειν μετὰ τὰ καταμήνια, *ἢν ἴῃ. ἡ λύσις τοίνυν τῇ γυναικὶ χρόνον δοῦναι* (leg. forsan *τῇ λύσει τοίνυν τῇ γυναικὶ χρόνον δεῖ εἶναι*) *τοῦ μηνὸς ἐν ᾧ αὐτῇ ἡ κάθαρσις ἔσται. καὶ ὁ χρόνος οὗτος ᾗσιν ἐλάχιστος γίνεται τρεῖς ἡμέραι, ταῖς δὲ πλείσταις καὶ πολὺ πλείονες. ἔστι δὲ καὶ ἄλλα πολλὰ κωλύματα καὶ τοῖς ἀνδράσιν, ἐξ ὧν βραδύνεται ἡ ξύλληψις. χρὴ δὲ ἐν τοῖς μάλιστα καὶ τόδε λογίζεσθαι, ὅτι ἡ νουμηνίη ἡμέρη μία ἐοῦσα ἐγγύτατα τριηκοστημόριόν ἐστι τοῦ μηνὸς, αἱ δὲ δύο ἡμέραι σχεδὸν πεντεκαιδεκατημόριον τοῦ μηνός· αἱ δὲ τρεῖς ἡμέραι δεκατημόριον τοῦ μηνὸς, καὶ τἄλλα κατὰ λόγον τουτέων. καὶ οὐχ οἷόν τε ἐν τοῖς ἐλάσσοσί τε μορίοις μᾶλλον γινεσθαι οὔτε τὴν λύσιν τῶν καταμηνίων οὔτε τὴν σύλληψιν τῶν ἐμβρύων. ἐκ τούτων οὖν ἁπάντων ἀναγκαῖόν ἐστι ταῖς πλείσταις τῶν γυναικῶν περὶ διχομηνίην ἐν γαστρὶ λαβοῦσαι* (leg. *λαβέσθαι*) *καὶ πορρωτέρω, ὥστε πολλάκις δοκεῖν ἐπιλαμβάνειν τοῦ ἑνδεκάτου μηνὸς τὰς ὀγδοήκοντα καὶ διακοσίας· τοῦτο γάρ ἐστιν ἑπτὰ τεσσαρακοντάδες. ὅτι γὰρ ἢν* (lege *ὅ, τι γὰρ ἂν*) *ἔξω τῆς διχομηνίης ξυλλαμβάνει* (leg. *ξυλλαμβάνῃ*) *ἡ γυνὴ, τοῦτο πᾶν ἀναγκαῖόν ἐστι τοῦ ἑνδεκάτου μηνὸς ἐπιλαμβάνειν, ἵνα περ ἐς τελευταίην* (*τελείην*) *περίοδον καταστῇ.*

In this reasoning it is obviously taken for granted that the natural period of gestation was 40 weeks, 280 days: and it is also to be observed that these 280 days are supposed to extend so critically from the fifteenth of the first month, by the calendar, as the date of conception, to the end of the tenth month, that even a single day over and above must be supposed to have made part of the eleventh month. Now 280 + 15 = 295: just the number of days in ten months by the calendar, alternately 30 and 29 days long. It is clear then that, if even 281 days from the 15th of the first month would include the first day of the eleventh month, at least, the first ten months must have contained only 295 days; and consequently every two months, from the first inclusive to the tenth inclusive, only 59 days. The calendar therefore to which this calculation was adapted must have been a lunar calendar—but a lunar calendar of such a kind that out of the first ten months of the year, five must have been full and five must have been hollow; that is, five must have contained 30 days and five 29. Consequently a lunar calendar, regulated by the Octaëteric cycle, in which this kind of alternation of the full and the hollow month, or *vice versa*, the hollow month and the full, as stated and regular, and as a constant characteristic of the calendar in every year of the cycle alike, would be possible; but not by the Metonic, in which that kind of alternation could not always have been the case, and there must have been years in the course of the cycle in which the first ten months would contain more than 295 days*.

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[i] i. 447 6.

[k] Cf. i. 417. 8—418. 9. Περὶ *φύσιος παιδίου.*

[l] i. 458. 12.

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* Gestation being thus reckoned at ten months by the calendar, and each of those months being nominally 30 days long, it was natural for the Greeks in particular to speak of it as a period of 300 days. Thus, Euphorion, apud Stobæum, Florileg. iii. 105. lxxviii. 5.

> Τέκνον μὴ σύ γε μητρὸς ἀπ᾽ ἀνθερεῶνας ἀμήσῃς,
> ηελίους ἥτις σε τριηκοσίους ἐφόρησα
> τέκνον ὑπὸ ζώνῃ, φοβερὰς δ᾽ ὠδῖνας ἀνέτλην
> ἐς φάος ἐρχομένου· λαρὸν δ᾽ ἐπὶ χείλεσι πρώτη
> μαστὸν ἐπισχομένη λευκῷ σ᾽ ἔψησα γάλακτι.

Suidas dates the birth of Euphorion, Ol. 126. ὅτε καὶ Πύρρος ἡττήθη ὑπὸ Ῥωμαίων. He was born at Chalcis in Eubœa, (cf. Virgil. Ecloga. x. 50.) was librarian of Antiochus Magnus, and was buried at Apamea or Antioch.

Cf. also Virgil. Ecloga, iv. 61, and the Comment of Servius in loc.

If we are right then in these conclusions, the extant works of Hippocrates recognise a solar year of 365 days and a lunar one of 360; that is, a lunar year in which every month was nominally 30 days long, but every other month really was only 29 days long. And this, as we have observed, being a regular characteristic of the rule of administration in the old Octaëteric cycle, they recognise a civil lunar calendar in their time still regulated by that cycle. But with respect to the Type of such a cycle, to which the calendar, referred to and recognised in those allusions, may have belonged; we have no means of judging of it, because no date occurs in these works which would have served to put the specific character of the calendar itself to the test. It is most probable however, that as the island of Cos was the native place of Hippocrates, and the place where he was brought up and taught medicine by his father Heraclides [m], where his own school of medicine was afterwards planted, and of the climate and parallel of which, and the neighbouring island of Cnidus, the birthplace and observatory of Eudoxus also, the *καταστάσεις* or medical cases, presupposed in his works, according to Galen [n], were first and properly to be understood; it is probable, we say, that most of his extant works (most, at least, of those which bear his name at present, and emanated from his school) were written at Cos; and that no calendar was so likely *a priori* to be referred to in them as the calendar of Cos. And Cos being so near to, and so closely connected with, Cnidus, the calendar of Cos and that of Cnidus may be presumed to have been one and the same. And the calendar of Cnidus, as that of Eudoxus also, there can be little reason to doubt must have been one of those of the Third Octaëteric Type in general.

We may therefore consider it extremely probable that the calendar recognised in the above allusions, (which must have been an octaëteric one of some kind,) was the octaëteric of the epoch of B. C. 542; but whether that calendar as still regulated by the original cycle, or by the modified and corrected cycle, published by Eudoxus, B C. 382, depends on the date of these two treatises, *περὶ ἑπταμήνων* and *περὶ ὀκταμήνων*; and that is a question which we have not the means of determining. It makes little difference indeed to the nature of the calendar itself, whether these references to it were older or later than the correction of Eudoxus: and perhaps on the whole the most probable conclusion is that, if these two treatises were really the work of Hippocrates, the references which occur in them must be understood of the calendar before the correction of Eudoxus; if they were written by Polybus, or any other of his contemporaries and disciples, they may be understood of the calendar later than it. The meaning of this distinction is that Hippocrates himself could not have been living and writing so late as B. C. 382, though Polybus and others of his disciples might have been so. And for the sake of establishing or illustrating the truth of this distinction, which is contrary at first sight to the generally received opinion of the birth and death of Hippocrates, we will conclude our observations on this subject with a few remarks on the chronology of the Life of Hippocrates.

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[m] Soranus, in Vita: Suidas, Ἱπποκράτης: Scholia in Platon. ii. 402. Respublica, 144. 10. Ἡρόδικον τὸν Σηλυμβριανὸν κ̀, τ. λ. Tzetzes, Chilias vii. 944: Histor. 155. De Hippocrate.

[n] xvi. 393. 3.–394. 5: xvii. Pars ii. 597, 598.

Hippocrates, according to the Vita, included in his works[o], *Κατὰ τοὺς Πελοποννησιακοὺς ἤκμασε χρόνους, γεννηθεὶς, ὥς φησιν Ἱστόμαχος ἐν τῷ πρώτῳ περὶ τῆς Ἱπποκράτους αἱρέσεως, κατὰ τὸ πρῶτον ἔτος τῆς ὀγδοηκοστῆς Ὀλυμπιάδος, ὡς δὲ Σωρανὸς ὁ Κῶος, ἐρευνήσας τὰ ἐν Κῷ γραμματοφυλακειᾳ̑, προστίθησι, μοναρχοῦντος Ἀβριάδα μηνὸς Ἀγριανοῦ* (corr. *Ἀγριανίου*) *ἑκτῇ καὶ εἰκοστῇ, παρ᾽ ὃ καὶ ἐναγίζειν ἐν αὐτῇ μέχρι νῦν Ἱπποκράτει φησὶ τοὺς Κώους.* Of one of the authorities here quoted, Histomachus, nothing is known at present. Suidas[p] mentions two authors of the name of Soranus, both *ἰατροὶ*, and both of Ephesus; the oldest, a contemporary of Trajan's, the younger, the author of *Βίοι ἰατρῶν*; who was probably the Soranus referred to in the Vita—though he is there called a Coan, and by Suidas (as also by Tzetzes[q]) an Ephesian. In the date of his birth, Soranus would seem to have agreed with Histomachus; adding moreover the day of his birth, the 26th of Agrianius in the calendar of Cos; a day still solemnised there, even in the time of Soranus, by the people of Cos, and as it may be inferred from Lucian[r], by the Medici of antiquity generally. Agrianius occurs, as we hope to see hereafter, in the calendar of Rhodes, but in no other calendar of antiquity besides, except this of Cos, so far as we know; and in the Rhodian calendar it was the name of the first month; and probably therefore the name of the first month in the calendar of Cos. On which supposition, and on the assumption that this calendar really belonged to the Third Octaëteric Type, we might approximate to the probable date of the birth of Hippocrates, even in the Julian calendar; some time in the month of January.

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[o] iii. 850. [p] *Σωρανός.* [q] Chilias vii. 986. Histor. 155.

Ol. 80 corresponded to B. C. 460–456: and the learned hitherto seem to have been disposed to acquiesce in this date of his birth. But, in our opinion, it is liable to many objections; and cannot be reconciled with the facts of his subsequent history, as they have been left on record.

For i. even if he was born Ol. 80, 1, B. C. 460, he could have been only 36 years old at the death of Artaxerxes Longimanus, B. C. 424: consequently he must have been much too young to have become known in Persia at any preceding period of his reign. Yet this Artaxerxes was the king who is said to have invited him to his court; and to whose invitation his memorable epistle is said to have been returned. The letters which passed between them are given in the Epistles ascribed to Hippocrates; and though the genuineness of these may be doubted, it is agreed they are ancient, and it is to be presumed they were founded on the known facts of his personal history. This particular incident in his life is referred to *obiter*[t] by Galen: *Ὅτι ἄριστος ἰατρὸς καὶ φιλόσοφος—Καὶ μὴν εἴ τίς γ᾽ ἐστι τοιοῦτος ὑπερόψεται μὲν Ἀρτοξέρξου τε καὶ Περδίκκου .... ἀπολείψει δὲ Κώοις μὲν καὶ πολίταις Πόλυβόν τε καὶ τοὺς ἄλλους μαθητὰς, αὐτὸς δὲ πᾶσαν ἀλώμενος ἐφέξει τὴν Ἑλλάδα.*

On the same supposition, he could not have been more than 30 when the plague broke out at Athens, B. C. 430: yet his presence there on that occasion is attested by the fact which Galen records[v]; and his services during it, by the decree of the Athenians, supposed to have been passed on account of them *[x]. An oration also is extant, ascribed to Thessalus his son, and supposed to have been spoken at Athens[y]; in which it is related[yy] how, in anticipation of the coming of the plague, while Hippocrates himself continued in Thessaly, to help the people of that country, he sent Thessalus, this one of his sons, to Macedonia, Draco, another, to the Hellespont, Polybus or Polybius, his son-in-law, somewhere else. This oration is dated nine years after Thessalus' coming into the Peloponnese, and three years at least after the Sicilian expedition[z]. We do not vouch for the truth of any of these statements. All we contend for, on the strength of such representations is, that it must have been known Hippocrates had sons, and a son-in-law, all arrived at man's estate, and proficients in his own science, before the plague broke out. If so, it is impossible he could have been no more than 30 years old himself, B. C. 430. It would be much more probable that he was 55 or 60 at least; and therefore born not B. C. 460, but B. C. 490, about which time some of the ancients in fact date even his acme, making him flourish in the reign of Darius Hystaspis[a].

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[r] iii. 49. Philopseudes, 21.

[s] Suidas, in Vita: Isidore, Origg. iv. 3. 36 C. cf. Stobæus, Florileg. i. 325: xiii. 31.

[t] i. 58. 4.

[v] xiv. 281. 8 ad Pisonem, De Theriaca, 16.

The writer of his life proceeds[b], *Τὴν δὲ σύμπασαν Ἑλλάδα θεραπεύων ἐθαυμάσθη, ὥστε καὶ ὑπὸ Περδίκκα τοῦ Μακεδόνων βασιλέως, φθισικοῦ νομισθέντος, παρακληθέντα δημοσίᾳ, πρὸς αὐτὸν ἐλθεῖν μετ' Εὐρυφῶντος.* His intimacy with Perdiccas is attested by Suidas[c]; *Διέτριψε δὲ ἐν Μακεδονίᾳ, φίλος ὢν σφόδρα τῷ βασιλεῖ Περδίκκᾳ*: and the same story has been left on record[cc] of his discovering that Perdiccas was in love with a concubine of Alexander his father's, called Phila, which is related also of Erasistratus and Antiochus, the son of Seleucus Nicator. Now the reign of Perdiccas is dated by the most judicious chronologers[d], B. C. 454: and this incident must have happened just after he came to the throne. What then was the age of Hippocrates at the time, if he was born only B. C. 460? And as *he* was thus traditionally reported to have been the physician of Perdiccas, so was Thessalus his son of Archelaus. Thessalus, says Galen[dd], *Ἀρχελάῳ τῷ τῆς Μακεδονίας βασιλεῖ συνεγένετο.* Yet Archelaus too began to reign only B. C. 413, and was killed B. C. 404. What then could have been the age of Thessalus, any time in his reign, if his father, B. C. 413, was not more than 47?

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* References to Hippocrates occur in the dialogues of Plato; particularly the Phædrus, Pars i. vol. i. 88, 4: 88, 11, and the Protagoras, Ibid. 153, 9. from which it is clearly to be inferred that he was still living at that time; *Ὥς περ ἂν εἰ ἐπενόεις παρὰ τὸν σαυτοῦ ὁμώνυμον ἐλθὼν Ἱπποκράτη τὸν Κῷον, τὸν τῶν Ἀσκληπιαδῶν, ἀργύριον τελεῖν ὑπὲρ σεαυτοῦ μισθὸν ἐκείνῳ κ', τ. λ*—but not that he was then at Athens, though Protagoras was so, (159, 7), and the guest of Callias, at the time, 160, 2. Plato's usual disregard of chronology however appears here too; in speaking of Xanthippus, the son of Pericles, (160, 11), and of Pericles himself (169, 14–170, 3) as now alive—and yet of the dialogue itself as taking place the year after the *διδασκαλία* of the *Ἄγριοι* of Pherecrates, the date of which is known to have been Aristio: 183, 15—*Ἀλλ' εἶεν Ἄγριοί τινες, οἷοί περ οὓς πέρυσι Φερεκράτης ὁ ποιητὴς ἐδίδαξεν ἐπὶ Ληναίῳ*: Aristio, B. C. 421–420.

[x] Opp. iii. 829. 1–830. 6.
[y] *Πρεσβευτικός*—iii. 831. 15–850. 5.
[yy] 843. 8 sqq.
[z] iii. 843. l. 12–844. 11: 845 last line.
[a] Anecdota Græca Paris. ii. 271. 9.
[b] iii. 851. 14.

The names of two of the sons of Hippocrates are attested by Galen[e], Thessalus and Draco; and that of his son-in-law Polybus[f]; who, according to him, remained all his life in Thessaly. Suidas[g] mentions four of his lineal descendants, through Thessalus, who seems to have been his eldest son; first Draco, son of this Thessalus; then Hippocrates, son of Draco; thirdly Draco, son of this Hippocrates: who it appears was a contemporary of Roxane's, queen of Alexander the Great, and performed a cure upon her[h]. On this supposition, there were four generations between Hippocrates and Alexander; and if *he* was 30 at the time of the birth of Thessalus, and Draco 40, when he cured Roxane, (about B. C. 325,) there might have been 160 years complete between B. C. 325, and the birth of Hippocrates, B. C. 485.

The chronology of the life of Hippocrates, in the traditionary accounts of it which have been handed down, is mixed up with that of the life of Democritus, about which too there is just the same uncertainty[i]. Suidas[k] makes them contemporaries: yet Hippocrates the older of the two—*ἐπιβαλεῖν γὰρ αὐτὸν νέῳ πρεσβύτην*: and according to the author of the Vita[l], both died about the same time: *Ἐτελεύτα δὲ παρὰ Λαρισσαίοις, ὅτε καὶ Δημόκριτος φέρεται τελευτήσας. καὶ οἱ μὲν ἐνενήκοντα ἐτῶν, οἱ δὲ πέ φασιν, ἄλλοι ρδ'*[m], *τινὲς ρθ'. τέθαπται δὲ μεταξὺ Γορτῶνος καὶ Λαρίσσης, καὶ δείκνυται ἄχρι δεῦρο τὸ μνῆμα, ἐν ᾧ μέχρι πολλοῦ σμῆνος ἦν ἐργαζόμενον μέλι.* The extreme dates of his age, here assigned, differ by 24 years; and that would imply the same difference in those of his birth: so that while some might have reckoned that B. C. 460, others might have reckoned it 24 years earlier, B. C. 484, at least.

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[c] In nomine.

[cc] Vita, iii. 851 last line.

[d] Cf. Clinton, F. H. ii. App. ch. iv. 275: Athenæus, v. 58. Marm. Par. Epocha lix.

[dd] xv. 12. 3.

[e] xvi. 5, 14. In Hipp. Περὶ χυμῶν. A. 1. 625. 9. in Hipp. Προρρ. ii. 52.

[f] xv. 11. 17: 12. 6. xvi. 3. 8.

[g] Δράκων. cf. Tzetzes, Chilias vii. 968: 974 sqq. Histor. 135.

[h] Cf. in Ἱπποκράτης Θεσσαλοῦ: Ἱπποκράτης τέταρτος: and Θεσσαλός.

Upon the whole then the most probable date of the birth of Hippocrates seems to have been some time between B. C. 500 and B. C. 480: on which supposition, if he did not live in any case more than 109 years, he could scarcely have written and published any thing later than B. C. 382*: and if the two works, which contain the allusions to the calendar considered supra, were written by him, the calendar referred to in them must have been the original Octaëteric correction of the Third Type; not the correction of that by Eudoxus. The case, as we have also observed, would be different, if these works were not his, but the composition of some one or other of his disciples, after his death. On that supposition they might have been later than Eudoxus' correction of the Third Octaëteric Cycle; and if they were actu-

* The allusion indeed to the comet, in the fourth book of the Epidemiæ, which we considered supra, (page 76, 77 note,) and endeavoured to determine to B. C. 392, if Hippocrates was the author of that book, would prove that he must have been still living and writing as late as B. C. 392. But even that would be ten years before B. C. 382, and Hippocrates might be writing up to B. C. 392, and yet be dead before B. C. 382. The true author however of the book, which contains this allusion, was not Hippocrates, but Thessalus his son, according to Galen.

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[i] Pliny, H. N. xxx. 2. Ælian, Variæ, iv. 20: A. Gellius, xvii. 21: Eusebius, Chron. Arm. Lat. ii. 213. Ol. 86. 2: 217. Ol. 94. 2. Jerome, in Chronico, Olym. 86. 1. Isidore, Origines, viii. 9. 68. D.

[k] Ἱπποκράτης. Cf. in Δημόκριτος. Also Diogenes Laertius, Democritus, ix. vii. § vii. 39: § ix. 41: x. 42: xi. 43.

[l] iii. 853. 9.

[m] Cf. Suidas in voce: Tzetzes, Chilias vii. 971. Histor. 135.

ally written and published at Cos, they can scarcely be considered to have referred to any but that *.

* Cnidus, where Eudoxus had his observatory, and Cos, where Hippocrates and his successors had their school of medicine, were so near to each other, that, if the calendar of the one did not differ from that of the other, the authors of these works (if written at Cos, later than B. C. 382) were as likely *a priori* to make use of the solar Parapegma of Eudoxus, as of his lunar calendar: and that they actually did so, may be shewn with great probability, if not with absolute certainty, by means of another class of dates which also occur in them, and are of the same age as those which we have just been considering.

i. *Τὸν μὲν ἐνιαυτὸν ἐς τέσσαρα μέρεα διαιρέουσιν, ἅπερ μάλιστα γινώσκουσιν οἱ πολλοὶ, χειμῶνα ἦρ θέρος φθινόπωρον. καὶ χειμῶνα μὲν ἀπὸ* Πλειάδων *δύσιος ἄχρι ἰσημερίης ἐαρινῆς, ἔαρ δὲ ἀπὸ ἰσημερίης μέχρι* Πλειάδων *ἐπιτολῆς, θέρος ἀπὸ* Πλειάδων *μέχρι ἀρκτούρου ἐπιτολῆς, φθινόπωρον δὲ ἀπὸ ἀρκτούρου μέχρι* Πλειάδων *δύσιος*[1]—ii. *Ἀπὸ* Πλειάδων *δύσιος μέχρις ἡλίου τροπῶν ἡμέρας τεσσαράκοντα τέσσαρας. περὶ δὲ τὴν τροπὴν ἐν φυλακῇ ὅτι μάλιστα εἶναι, καὶ ἀπὸ τροπῆς ἡλίου ἄλλας τοσαύτας ἡμέρας τῇ αὐτῇ διαίτῃ χρέεσθαι. ἐπὴν δὲ ὥρη ἐπανάγῃ τὸν ζέφυρον, . . . . δεῖ καὶ τῇ διαίτῃ μετὰ τῆς ὥρης ἕπεσθαι ἡμέρας πεντεκαίδεκα, ὅτε ἡ ἀρκτούρου ἐπιτολὴ, καὶ χελιδὼν ἤδη φέρεται (φαίνεται). τὸν ἐχόμενον δὲ χρόνον ποικιλώτερον ἤδη διάγειν μέχρις ἰσημερίης ἡμέρας τριάκοντα δύο*[2]—iii. *Ὁκόταν δὲ ἰσημερίη γένηται κ᾽, τ. λ. χρὴ οὖν, ὡς μὴ ἐξαπίνης τὴν δίαιταν μεταβάλλειν, διελεῖν τον χρόνον ἐς μέρεα ἓξ, κατὰ ὀκτὼ ἡμέρας. . . μέχρι* Πλειάδων *ἐπιτολῆς*[3]— Barley cakes are recommended for this period, instead of wheaten bread: *Εἶτα τῇ μάζῃ*[4] *πλεῖον ἢ τῷ ἄρτῳ*—down to the summer solstice[5]: *Ταύτῃ δὲ τῇ διαίτῃ προσανεχέτω μέχρις ἡλίου τροπέων*[6]: and this interval, from the Πλειάδων *ἐπιτολὴ* to the solstice, for almost every part of Greece was the stated season of barley harvest. Lastly, Τὸν *ἐχόμενον δὲ χρόνον. . . μέχρις ἀρκτούρου ἐπιτολῆς καὶ ἰσημερίης ἡμέρας ἐνενήκοντα τρεῖς. . . τοῖσι χειμερίοισι χρέεσθαι μὴ ἐς ἄκρον, ὅκως καταστήσῃ ὡς ἔγγιστα τῆς χειμερινῆς διαίτης ἐν ἡμέραιν δυοῖν δεούσαιν ἢ πεντήκοντα μέχρι* Πλειάδων *δύσιος ἀπὸ ἰσημερίης*[7].

Respecting the author of this work, Περὶ *διαίτης*, in general, Galen pronounces it either Hippocrates' own, or Philistion's, or Aristo's, or Euryphon's, or Philetus'[8]; all styled by him *παλαιοὶ ἄνδρες*: and he recognises a third book with that title[9]. In one instance he calls it Hippocrates' own[10]; in another, either his, or that of some other ancient author[11]. The spirit of a passage in one of Hippocrates' genuine works may be recognised in the above[12]: *Καὶ ἐπικινδυνόταται ἡλίου τροπαὶ ἀμφότεραι, καὶ μᾶλλον θεριναί· καὶ ἰσημεριναὶ (τροπαὶ) νομιζόμεναι εἶναι ἀμφότεραι, μᾶλλον δὲ αἱ μετοπωριναί. δεῖ δὲ καὶ τῶν ἄστρων τὰς ἐπιτολὰς φυλάσσεσθαι, καὶ μάλιστα τοῦ κυνός. ἔπειτα ἀρκτούρου, καὶ ἐπὶ Πληϊάδων δύσει. τά τε γὰρ νοσεύματα μάλιστα ἐν ταύτῃσι τῇσιν ἡμέρῃσιν κρίνεται· καὶ τὰ μὲν ἀποφθίνει τὰ δὲ λήγει, τὰ δὲ ἄλλα πάντα μεθίσταται εἰς ἕτερον εἶδος καὶ ἑτέρην κατάστασιν.* That he recognised *all* the divisions of the year and the seasons, alluded to in the above passages, has appeared already[13]: and in the first book of the Ἐπιδημίαι, universally ascribed to him, the only notes of time which occur are taken from some or other of these natural phenomena: Ἐν Θάσῳ *φθινοπώρου, περὶ ἰσημερίην, καὶ ὑπὸ* Πληϊάδα, *ὕδατα πολλὰ*[14]—Ἐν Θάσῳ *πρωῒ τοῦ φθινοπώρου χειμῶνες κ᾽, τ. λ. μέχρι* Πληϊάδος *δύσεως καὶ ὑπὸ* Πληϊάδα *κ᾽, τ. λ. ἤδη δὲ μεθ᾽ ἡλίου τροπὰς χειμερινὰς καὶ ἡνίκα* Ζέφυρος *πνέειν ἄρχεται, ὀπισθοχειμῶνος μεγάλοι*[15]. So in the second book, which likewise is considered genuine: Ἐς Πέρινθον *περὶ ἡλίου τροπὰς ὀλίγον τὰς θερινὰς ἤλθομεν· ἐγεγόνει δὲ ὁ χειμὼν εὔδιος, νότιος, τὸ ἔαρ καὶ τὸ θέρος πάνυ ἄνυδρον μέχρι* Πληϊάδων *δύσιος*[16] The same characteristic is stamped on the other books, which are more doubtful: Ἐπιχάρμῳ *περὶ* Πληϊάδος *δύσιν*[17]—Αὐχμοὶ *πολλοὶ μετὰ ζέφυρον ἐγένοντο, μέχρις ἰσημερίης φθινοπωρινῆς*[18]—Τῇ Κλεομένεος *(γυναικὶ) περὶ ζεφύρου πνοάς*[19]—Μετὰ *ζέφυρον αὐχμοὶ ἐγένοντο μέχρις ἡμέρας (ἰσημερίης) μετοπωρινῆς*[20]—Οἱ *ὀρνιθίαι ἔπνευσαν πολλοὶ καὶ ψυχροὶ . . . καὶ μετὰ ἰσημερίην νότια*[21].

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[1] i. 708. 14. *Διαιτητικὸς τρίτος.*

[2] i. 711, 12.

[3] Ibid. i. 712. 5–713. 9.

[4] Cf. Schol. in Aristoph. ad Pac. 1: Ad Equites, 55: Eustath. ad Il. B. 537. 280. 11.

[5] i. 713. 12. cf. l. 2.

[6] 714. 14.

[7] 714. 17.

[8] vi. 473. 3–6. Περὶ *τροφῶν δυνάμεως*, i. 1.

[9] Ibid. 473. 11, 12.

[10] Ibid. 496. 4. from bott. Ib. 6.

[11] vi. 511. 11. Ibid. 13. cf. 541. 2. from bott. Ibid. 28: 543. 12. Ibid: 545. 15. Ibid: xv. 455. 13–456. 4: Comm. in Hipp. De Diæta acutorum, 1.

The above intervals are eight in number, and, as specified in the text, stand as follows:—

| | | Days. |
|---|---|---|
| i. | From the Πλειάδων δύσις to the winter solstice | 44 |
| ii. | From the winter solstice to the Flatus Favonii | 44 |
| iii. | From the Flatus Favonii to the Arcturi ortus vespertinus, and Hirundinis adventus | 15 |
| iv. | From the Ortus Arcturi, and Hirundinis adventus, to the vernal equinox | 32 |
| v. | From the vernal equinox to the Πλειάδων ἐπιτολή | 48 |
| vi. | From the Πλειάδων ἐπιτολὴ to the summer solstice | ** |
| vii. | From the summer solstice to the autumnal equinox | 93 |
| viii. | From the autumnal equinox to the Πλειάδων δύσις | 48 |

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[12] i. 547. 1. *Περὶ ἀέρων, ὑδάτων, τόπων.*

[13] i. page 291 sqq. note.

[14] iii. 382. 1. lib. i.

[15] 387. 8. ibid.

[16] iii. 444. 7.

[17] iii. 580. 2. lib. v.

[18] Ibid. l. 6.

[19] 695. 10. lib. vii.

[20] Ibid. 697. 4. lib. vii.

[21] Ibid. 12. Of the winds called *ὀρνιθίαι*, see the Parapegma of Geminus, and Ptolemy, and Columella: which place them between the Hirundinis Adventus and the vernal equinox. Aristotle, 395 3 a. De Cælo, ad Alex. 4: *Οἱ δὲ ὀρνιθίαι καλούμενοι ἐαρινοί τινες ὄντες ἄνεμοι βορέαι εἰσι τῷ γένει.*

Now that these dates and these divisions were in all probability taken from the Parapegma of Eudoxus, may easily be shewn, after one or two observations have been premised.

i. With respect to the cardinal points of the Sphere of Eudoxus, that is, the dates which he adopted for the vernal equinox, the summer solstice, the autumnal equinox, and the winter solstice, respectively; we know two of them, the vernal equinox and the winter solstice, from testimony, and we may judge of the other two from the analogy of these. The vernal equinox, according to Geminus, was dated by Eudoxus in the 6th degree of Krion, March 29; and the winter solstice in the 4th degree of Ægon, Dec. 28: and these two dates are so different from the true, for the actual time of Eudoxus, March 26, and Dec. 25 or 26, respectively, as to leave no doubt that they neither were nor could have been determined in the usual manner. And without troubling the reader with a variety of conjectures as to the mode in which they might have been actually obtained, let it suffice to declare our opinion, that they were neither more nor less than those which Eudoxus received from the priests of Egypt, when he was there between B. C. 395 and B. C. 382, as those which held good, or were assumed to have held good, at the epoch of the cycles of Sari, B. C. 687, to which we alluded supra[22], as compiled by him in Egypt on the same occasion. But, what is most to the purpose, they were those which the priests themselves had deduced not from actual observation, or any sound principles of calculation *a priori*, such as astronomers would apply at present, but solely from the doctrine and theory of the precession and recession of the cardinal points both of the fixed and of the moveable sphere; of which also we have given a full account in former parts of this work. This theory, as we have explained, came up in B.C. 798; and the recession, at the rate of one degree in space, and one day in time, in 80 years, could not have been considered to amount to more than one day, B. C. 687, 111 years only from the epoch.

The cardinal points in the sphere of Mazzaroth, as we have also explained[23], were laid down originally, March 24, June 24, Sept. 23, and Dec. 23, at mean noon, respectively; but as, after B. C. 672, these Julian terms would necessarily drop one day each, we may assume them, for the time of Eudoxus, as March 23, June 23, Sept. 22, and Dec. 22, at mean noon, respectively: and that being done, and an allowance of one day being made for the precession, between B. C. 798 and B. C. 687, the cardinal points, B.C. 687, on the strict principles of the theory in question, must have been assumed as follows:—

*Cardinal Points in the sphere of Mazzaroth, as affected by the doctrine of the Precession, B. C.* 687.

| | | | Noon. |
|---|---|---|---|
| i. | Vernal equinox in 8vis partibus, | March | 29–30. |
| ii. | Summer solstice in — — | June | 29–30. |
| iii. | Autumnal equinox in — — | Sept. | 28–29. |
| iv. | Winter solstice in — — | Dec. | 28–29. |

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[22] Page 619. 627.

[23] Fasti Catholici, iii. 305.

Of these, the first and the fourth are known from actual testimony to have been Eudoxus' dates of that kind respectively, and that must go far to prove that the other two must have been so likewise; and consequently that all his dates of this kind, as we have supposed, must have been derived from the sphere of Mazzaroth, as it was standing, or supposed to be standing, at this epoch of B. C. 687.

ii. With regard to the actual dates of the Parapegma of Eudoxus, in particular instances, we know them at present only from those of the calendar of Geminus, or of the Apparentiæ of Ptolemy, or of some other of the compilations of the same kind, which have come down to posterity; and these, as we have explained elsewhere[24], follow a peculiar rule; the dates of Geminus, in being all deduced from the traditionary epoch of the solstice of Meton, June 27, at or about 5 A. M., those of Ptolemy in being all derivable from Thoth 1 or August 29 at mean noon. And every date of this kind corresponding to two Julian terms, a lower and an higher, (a lower between 5 A. M., or noon, and midnight—an higher between midnight and 5 A. M., or noon,) it depends on circumstances, of what Julian date a given date in the calendar of Geminus, or in that of Ptolemy, is to be understood; whether the lower or the higher. If it be the date of a phenomenon which from the nature of the case must have happened in the evening, the proper Julian date will be the lower one; if that of a morning phenomenon, it will be the higher.

These explanations having been premised; let us take the preceding divisions as they are stated supra, and apply them to the cardinal points of the sphere of Eudoxus, beginning with the autumnal equinox.

i. The autumnal equinox being assumed as Sept. 28, 48 days from Sept. 28 bring us to Nov. 15—i. e. to Eudoxus' date of the *Πλειάδων δύσις*—according to Geminus, Scorpion 19; which in this case will require to be understood of Nov. 15—the phenomenon itself being one which must necessarily happen in the morning.

ii. From Nov. 15, as the date of the *Πλειάδων δύσις,* reckon on 44 days, and you come to Dec. 29—Eudoxus' date of the winter solstice, Ægon 4, Dec. 28 at noon, to Dec. 29 at noon.

iii. From Eudoxus' date of the winter solstice, Dec. 28 at mean noon, reckon another 44 days, and you come to Feb. 10–11—Eudoxus' date of the *Ζεφύρου πνοή,* according to Ptolemy, Mecheir 17.

iv. Reckon on 15 days from Feb. 10—Eudoxus' date of the Flatus Favonii—and you come to Feb. 25 at sunset, Eudoxus' date, according to Geminus, of the Arcturi Ortus Vespertinus, and of the Hirundinis Adventus, Ichthyon 4.

v. Reckon on 32 days from Feb. 25, and you come to March 29, Eudoxus' date of the vernal equinox, Krion 6, March 29 at noon, to March 30 at noon.

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[24] Origines Kal. Italicæ, iv. 152. 163.

## SECTION II.—*From the Calendar of Corcyra.*

An inscription is extant[n], calculated to illustrate the calendar of Corcyra. It is too long to be given *in extenso*; but we shall describe it in general correctly by representing it as the record of a decree of the people of Corcyra, which ratified a benefaction of the prytanis or chief magistrate for the time being, in conjunction with another individual whose name appears to have been Psylla, whereby a sum of money had been assigned to them; the interest of which was to provide a fund, for founding and keeping up an exhibition of *Ludi Scenici* at a stated time of the year.

Three months of the calendar, Μαχανεὺς, Εὐκλεῖος, and Ἀρτεμίτιος, are mentioned in this decree; the relative order of which, both *inter se*, and with respect to the rest of the calendar, Corsini[o] and Mr. Boëckh[p] collected to have been such, that Μαχανεὺς was the xith, Εὐκλεῖος the xiith, and Ἀρτεμίτιος the first: and we confess that such, *prima facie*, appears to be the inference most naturally suggested by the circumstances of the allusions to each of them; and we ourselves were disposed at first to agree in the same conclusion. On further and closer consideration however we have seen

vi. Reckon on 48 days from March 29, and you come to May 16, Eudoxus' date of the heliacal rising of the Pleiads, Tauron 22, according to Geminus, which in this case would require to be understood of May 16.

vii. This interval in the above list is wanting—but from May 16, as the date of the Πλειάδων ἐπιτολὴ, to June 29, as Eudoxus' date of the summer solstice—it would be one of 44 days.

viii. This last interval from the summer solstice to the autumnal equinox, as the text of the above divisions stand at present, is read as one of 93 days—but from June 29 at noon, to Sept. 28 at noon, the true interval would be 91 days; and it is evident that these two numbers 93 and 91 in Greek, written one ϟγ the other ϟα or ϟΓ and ϟΑ, were very liable to be confounded. This is the only correction which is required, to reconcile all the preceding divisions to those of the sphere of Eudoxus; and if each of the former was taken from his sphere, this last must have been so too.

[n] Corp. Ins. 1845. ii. 20–25.

[o] Fasti Attici, Pars i. tom. ii. 414–417: xiv. 11.

[p] Page 23.

reason to infer that at the date of the inscription the first month must have been Machaneus, the second Artemisius, and the last Eucleius. The grounds of this change of opinion we shall proceed to lay before the reader.

i. The decree is dated on the 24th of Machaneus, in the official year of Aristomenes[q]: Ἐπὶ σωτηρίᾳ. Πρυτανεύοντος Ἀριστομένεος μηνὸς Μαχανέος τετάρ(τᾳ) ἐπὶ εἰκάδι.

ii. The stewards, trustees, or managers of the fund were to be elected afresh every year, in this month Machaneus[r]: Ἑλέσθαι δὲ τὰν βουλὰν τοὺς χειριξοῦντας τὸ ἀργύριον ἄνδρας τρεῖς εἰς ἐνιαυτόν . . . αἱρεῖσθαι δὲ ἑκάστου ἐνιαυτοῦ μηνὸς Μαχανέος ἐμ βουλᾷ ἢ ἁλίᾳ[s]: the first three such trustees, or those who were to be appointed ἐπ' Ἀριστομένεος, being no exception. If so, these too were to be elected in Machaneus, only between the 24th of that month and the end.

iii. These first trustees were to put the money out to interest in a certain month, also in the year of Aristomenes; stipulating for the repayment (both principal and interest) in the same month the next year[t]: Οἱ δὲ αἱρεθέντες ἐπ' Ἀριστομένεος παραλαβόντες τὸ ἀργύριον παρὰ Ἀριστομένεος καὶ Ψύλλας, ἐγδανεισάντω ἐμ μηνὶ δυωδεκάτῳ καὶ Εὐκλείῳ τῷ ἐπὶ Ἀριστομένεος...συναλλάσσοντ(ες) ὥς κ' αὐτοὶ προαιρῶνται, ὥστε τὸν πριάμενον ἀποδόμεν τό τε κεφάλαιον καὶ τὸν τόκον ἐμ μηνὶ Εὐκλείῳ τῷ μετὰ πρύτανιν Ἀριστομένη.

This allusion to the twelfth month, Corsini and Mr. B. appear to have understood as one to the twelfth *absolutely*; and they have inferred from it that Eucleius was the twelfth month: and this conclusion *per se* was not mistaken, though the assumption on which it was founded, in our opinion, was so. For, as *we* understand the allusion, it was not meant of the twelfth month *absolutely*, but of the twelfth relatively; i. e. of the twelfth month after the trustees had been elected, and consequently the twelfth from Machaneus. And it appears to us that this is the only construction of its meaning which will explain the addition of the words, καὶ Εὐκλείῳ, to the mention of this month as the twelfth: an addition which must have been superfluous, if the twelfth month absolutely had been meant. We much question indeed, if no more had been intended by this reference to the xiith month, than simply the *last* in the year, whether its numerical order would have been specified at all; whether the reference would not have run in this instance, Ἐγδανεισάντω ἐμ μηνὶ Εὐκλείῳ τῷ ἐπ’ Ἀριστομένεος—as it does in the next instance, Ἐμ μηνὶ Εὐκλείῳ τῷ μετὰ πρύτανιν Ἀριστομένη—Ἐν τῷ Εὐκλείῳ μηνὶ τῷ με(τ’) Ἀριστομένη—and as it stands in similar allusions to the month Artemisius—Ἐν τῷ Ἀρτεμιτίῳ μηνὶ—τοῦ Ἀρτεμιτίου μηνός—and Μηνὸς Ἀρτεμιτίου, respectively.

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[q] Pag. 22. § 1. l. 1.

[r] Pag. 23. § 2. l. 44.

[s] Cf. of this use of ἁλία, supra, 425, 426.

[t] P. 23. § 2. l. 48.

It will probably occur to the reader that there is something singular in this mode of designating the xiith month, Ἐμ μηνὶ δυωδεκάτῳ καὶ Εὐκλείῳ—the *prima facie* tendency of which is to distinguish the twelfth month from the month Eucleius, and *vice versa*; and that this *prima facie* tendency to contradict its own meaning is due to the interposition of the particle καὶ between μηνὶ δυωδεκάτῳ and Εὐκλείῳ. And though the καὶ here might have the sense of *etiam* or *even*, (and in fact as the passage is read at present can have no other,)—in the twelfth month, *even* Eucleius,—we cannot help suspecting that in their original form the words stood, Ἐμ μηνὶ δυωδεκάτῳ τῷ καὶ Εὐκλείῳ τῷ ἐπὶ Ἀριστομένεος—and that the τῷ before the καὶ was accidentally left out in the copy which has come down to posterity.

On this supposition the drift of the explanation is obvious, and the addition must appear to have been any thing but superfluous. The trustees, elected ἐπ’ Ἀριστομένεος in Μαχανεὺς, were required to put the money out to interest in the twelfth month after their election; and if Μαχανεὺς was the first month of the current official year, this twelfth month was of course the last. And the month of their election being the first of Aristomenes, the twelfth month after their election was the twelfth of Aristomenes; and the twelfth of Aristomenes was the Eucleius of Aristomenes also. This seems to have been the true reason of the allusion—ἐμ μηνὶ δυωδεκάτῳ τῷ καὶ Εὐκλείῳ τῷ ἐπὶ Ἀριστομένεος. There were no doubt particular considerations why, though the donation was made and accepted in Machaneus, the first month of this year, it could not take effect before Eucleius, the last; why the management and administration of the fund for the first year should be specially provided for. And in fact, it appears from the sequel, that after this first year, thus treated as an exception to the general rule, the month in which every thing of the same kind was to be transacted was Artemisius, not Eucleius.

For if we go on with our examination of the particulars of the decree, we perceive, iv. that the trustees, first elected, having let out the money in Eucleius, *τῷ ἐπὶ Ἀριστομένεος*, and called it in again in Eucleius, *τῷ μετ' Ἀριστομένη*, were to hand it over, both principal and interest, to their successors: *Ἀναπράξαντες (δὲ) τό τε κεφάλαιον καὶ τὸν τόκον ἐν τῷ Εὐκλείῳ μηνὶ τῷ με(τ') Ἀριστομένη, παραδόντω τοῖς αἱρεθεῖσιν εἰς τὸν ὑπ' αὐτὰ ἐνιαυτόν*[v]. The important words here are *τοῖς αἱρεθεῖσιν εἰς τὸν ὑπ' αὐτὰ ἐνιαυτὸν*—the meaning of which is, "To the parties who had been elected against the year next ensuing"—the year next in order to the proceedings just specified, more particularly the calling in of the money in Eucleius, next after Aristomenes, which had been let out in Eucleius, of the year of Aristomenes. And as these parties were to be elected in Machaneus, the Eucleius last specified must have preceded Machaneus; and yet as both Machaneus, in which *these* were elected, and Eucleius, in which the money was *first* put out, came alike in the year of Aristomenes, one must have come at the beginning and the other at the end of the year, and one must have been the first month of the calendar and the other the last.

v. The trustees appointed to succeed these first ones, having received the funds in their possession, were to put them out to interest themselves, as they too had done; but in the month Artemisius, not the month Eucleius: and from this time forward Artemisius was to be the stated month for putting out the money to interest, and calling it in, and applying it to the purpose intended by the donation, and giving an annual account of its management[x]: *Οἱ δὲ παραλαβόντες χρηματιζόντ(ω) τὸ ἀργύριον πᾶν ἐν τῷ Ἀρτεμιτίῳ μηνὶ τῷ ἐφ' αὐτῶν...προκαρύξαντες**, *καὶ τὰ λοιπὰ πάντα ποιοῦντες* καθὼς καὶ τοὺς ἐπ' Ἀριστομένεος αἱρεθέντας γέγραπται [y]. This is sufficient to prove that Artemisius, in which they were to do this, must have been later than Machaneus, in which they had been elected; and Machaneus being the first month, it follows with great probability, if not with certainty, that Artemisius was the second.

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* This mention of *προκαρύξαντες* recognises a custom, very generally observed among the Greeks, in such cases as these, that of giving notice, a certain number of days beforehand, of any public proceeding. Stobæus,

[v] Page 23. § 2. l. 58.

[x] Ibid. l. 61.

vi. It is next enacted that as soon as, by means of the accumulation of interest on the principal, the trust-money should have reached the amount of 180 minæ, or three talents *, it should begin to be applied to the purpose intended from the first [z]: Ἐπεὶ δέ κα γένωνται τοκιζόμεναι μναῖ ἑκατὸν ὀγδοήκοντα, καὶ ἐγδανεισ(θ)ῶντι αἱ ἑκατὸν ὀγδοήκοντα μναῖ, παρελθόντος ἐνιαυτοῦ μετὰ τὸ ἐγδανεισθῆμεν...ἀποστειλάντω οἱ ἄρχοντες ἐπὶ τὰν τῶν τεχνιτᾶν μίσθωσιν, κ̀. τ. λ. This year being dated in Artemisius must have ended in Artemisius. The business of engaging these τεχνῖται, once begun, was to be repeated every other year: Μισθούσθω δὲ τοὺς τεχνίτας ἀφ' οὗ κ' ἀρχὴ γένοιτο παρ' (ἅ)τερον ἐνιαυτὸν, ἀπὸ τοῦ τόκου τῶν τριῶν ταλάντων—the reason of which no doubt was, that these τεχνῖται were the Διονυσιακοὶ, so called, and wanted for the Διονύσια, in the sense of the scenic or dramatic representations of antiquity, which like the Διονύσια, properly so called, were Τριετηρίδες, and took place only every other year. Lastly, when these artists were now in attendance, and the proper time of the exhibitions themselves was come, the

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Florileg. ii. 201. xliv. 22. Theophrastus: Ἔνιοι δὲ προγράφειν παρὰ τῇ ἀρχῇ, πρὸ ἡμερῶν μὴ ἐλαττόνων ἢ ἑξήκοντα (two months) καθάπερ Ἀθήνηοι ...παρὰ δέ τισι προκηρύττειν κελεύουσι πρὸ τοῦ κατακυρωθῆναι, πένθ' ἡμέρας συνεχῶς, εἴ τις ἐνίσταται, ἢ ἀντιποιεῖται τοῦ κτήματος ἢ τῆς οἰκίας...ὥσπερ καὶ ἐν τοῖς Κυζικηνῶν—Anecdota, 296. 8. Πρόπεμπτα· τὸ πρὸ πέντε ἡμερῶν τῆς ἐκκλησίας προγράφειν ὅτι ἔσται ἐκκλησία—Cf. Phot. Lex. 456. Πρόπεμπτα—which adds, ἵνα καὶ οἱ ἐν τοῖς ἀγροῖς συνέλθωσι, καὶ ἕκαστον τῶν βουλῶν (βουλευμάτων) προευτρεπισθῇ. The Senate itself sate every five days. Cf. Corp. Inscript. ii. 1131. Addenda, 3641 b. Lampsacus, v. 21. Ὁ δὲ ἱεροκήρυξ προσκηρυσσέτω καὶ δ(ιὰ τοῦ πρυτα)νείου, ὁ δὲ ἱερεὺς τὰς ἑορτὰς πρόπεμπτα καὶ πρότριτα, καὶ αὐθημ(ερὸν ταύταις) ταῖς ἡμέραις ἐν αἷς ἂν αἱ ἑορταὶ συντελῶνται.

* The rate of interest prescribed by the decree (§ 2. l. 50–55.) was that of two drachmæ on the mina, per month; 24 per cent. in a common lunar year, 26 in an intercalary one. On this subject see our Exposition of the Parables, iv. 453 note.

[y] Cf. supra, p. 660.

[z] P. 24. § 3. l. 77.

trustees, having previously called in the money, (which they were bound to do by the first of Artemisius,) were to pay part of it over to the Agonotheta, for the expences of the games, and the remainder to their successors (elected just before in Machaneus), both, in this same month Artemisius also; in which too, it is enacted finally, that the accounts of the year were always to close, and those of another always to begin[a]: *Οἱ δὲ χειρίζοντες τὸ ἀργύριον καθ' οὕς κα χρόνους παραγίν(ω)νται οἱ τεχνῖται, ἐπεί κ' ἀνπράξωντι τὸ ἀργύριον...τὸν μισθὸν τοῖς τεχνίταις...παραδόντω τῷ ἀγωνοθέτᾳ τοῦ Ἀρτεμιτίου μηνὸς πρὸ τᾶς ἕκτας, τὸ δὲ λοιπὸν τοῖς ἐφ(αι)ρεθεῖσιν...ἀπολογιξάσθωσαν δὲ καὶ οἱ χειρίζοντες τὸ ἀργύριον ἑκαστάκις εἰς βουλὰν μηνὸς Ἀρτεμιτίου, οἵ τε παραλαβόντες καὶ οἱ παραδιδόντες.*

And from this last direction, it must be inferrible also, that the Ludi in question were intended to be celebrated in this month; and these games being of the nature of Dionysia, if the stated month of such exhibitions at Corcyra was Artemisius, Artemisius was the stated Dionysiac month at Corcyra. And that too would be implicitly an argument that it must have been the second month in the calendar; which, as we hope to shew more at large on a future occasion, was the most common Dionysiac month in the Hellenic calendar in general. And not only so, but also that it must have been falling in the winter; the Dionysiac month, in the calendars of the time, everywhere falling at that season of the natural year. And these three months, Eucleius, Machaneus, Artemisius, in the calendar of Corcyra for the time, being consecutive, if one of them fell in the winter, the other two must have done the same; and therefore one of them (in all probability Eucleius) before the solstice, the other two (Machaneus and Artemisius) after it.

That the calendar of Corcyra then at this time was lunar, and beginning in the winter, and at or about the solstice of winter, and consequently must have been reducible under one or other of the Five Lunar Types in general, of which we have hitherto been giving an account, (all of which fell out in the winter, and all more or less at the solstice of winter,) may reasonably be inferred from the testimony of this inscription. Under which of those Types it might be reducible in particular, at first sight, would seem to be a more difficult question; and yet the testimony of the inscription may enable us to come to some conclusion on that too.

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[a] Page 24. § 3. l. 89.

It appears, from the last provision in the decree, that so much of the fund as should be wanted to pay the artists or actors, at these exhibitions, should be paid into the hands of the Agonotheta, before the sixth of Artemisius; from which we may reasonably infer that the exhibitions themselves were to begin on the 6th of this month. And that being the case, from this fact it may be concluded that the 6th of the second month in the calendar of Corcyra corresponded to the 11th of the second in the old Attic correction, and to the 6th of the second in the Bœotian; the former the date of the *πιθοιγία*, and of the first day of the Lenæa, in the Attic calendar, the latter that of a corresponding ceremony in the Bœotian: and consequently that the proportion of epochs in this Corcyrean calendar, like that in the Bœotian, to those in the Attic, was that of the epochs of the Second Type to those of the first; and that this calendar, like the Bœotian, was one of those of the Second Type—the date of which was Jan. 13 B. C. 567. We cannot indeed propose this as a necessary deduction from the above premises; but we may, as a very probable one: and in that case, this Corcyrean inscription may lay claim to a very high degree of antiquity. If it belonged to what was still the Octaëteric æra of the calendar, it may have borne date some time in the first Period of the second Type, between B. C. 567 and B. C. 407, or some time in the second, between B. C. 407 and B. C. 247. If it belonged to the Metonic æra, though it could not have been older than B. C. 407, it might not have been much younger.

Corcyra was a Corinthian colony, which some of the ancients dated as far back as B. C. 734 [b], others, B. C. 708 [c]; and Timæus in particular, 600 years after the capture of Troy [d]: and it might have been supposed *a priori* that the calendar of Corcyra would have agreed with that of Corinth. But this one of the colonies of Corinth, for some reason or other, appears to have been remarkable for its independence on the mother city, and even its antipathy to it, from the first[e]. The first sea-fight, between any part of the Greeks and another, (260 years before the conclusion of the Peloponnesian war, and consequently as far back as B.C. 664, when the calendar every where was still the primitive solar one,) according to Thucydides[f], was one between the Corcyreans and the Corinthians. The former therefore were not likely to delay the correction of their calendar until the Corinthians set them the example; and if they actually did correct it in the same year as the Bœotians, that was merely the effect of circumstances.

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[b] Cf. Mr. Clinton's Fasti Hellenici, in anno.

[c] Ibid. in anno. Cf. Jerome in Chronico, Ol. 18. 1. Ad Ann. 1309.

[d] Schol. ad Apollon. Rhod. iv. 1210–1216. Strabo, vi. 2. 29.

With respect to the three months, and their names, (all that are known of,) Machaneus, Artemisius, and Eucleius; Artemisius has already occurred in many calendars, and will occur in more—and nothing further requires to be said about it at present, except that to judge from these different instances, it was a name which might be given to any month in the order of the civil, and any in the order of the natural, year. The name of Machaneus or Μαχανεὺς has never yet occurred; and for ought we have discovered to the contrary, may have been peculiar to this calendar. As to the etymon of the name; it might have been derived from Μαχάων—the name of one of the reputed sons of Æsculapius; who, along with Ποδαλείριος the other, figures among the rest of the chieftains of the Greeks in the war of Troy—Μαχαονεὺς or Μαχανεύς—and were it only known that the second syllable in the name was long, this explanation would derive much confirmation from that coincidence. In our opinion however it was more probably derived from Μαχάνα, the Doric form of Μηχάνη, and the original of the Latin Machina; and the meaning of the name, so derived, was probably that of the Machine-month—the month, in which mechanical means and contrivances were most wanted, and usually most employed, for some purpose or other. And as Corcyra was an insular community, and from an early period of its history powerful by sea, that purpose, in all probability, was the launching of ships; a characteristic of this month which, if really implied in its name, would be quite in unison with its place in the calendar, and its site in the natural year—as the first after the winter solstice, when the sea indeed would be most completely closed, but the building, repairing, and launching of ships might be going on most actively *.

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[e] Thucydides, i. 38. cf. Herod. iii. 49.

[f] Thucyd. i. 13. cf. Herod. iii. 49.

The month Eucleius, as we have seen, occurred in the calendar of Tauromenium, and probably in that of the older Naxus, in Sicily[g]; but at the middle of the calendar there, instead of the end, as here, and corresponding to the Julian August rather than to the Julian December. *Εὔκλεια* was one of the titles of Artemis among the Bœotians[h]; and as Plutarch adds, among the Locrians also[i]: and Mr. Boëckh has observed that games, so called, were celebrated at Corcyra, and are still attested by its coins; and if so, probably in this month—which either took its name from them or gave their name to them. We learn from the Hellenica of Xenophon also[k], that Eucleia were celebrated at Corinth, which the context determines to have been later than August 14 that year, and later than the close of military operations, B. C. 394; yet earlier than the beginning of the military season the next year, B. C. 393. And this is confirmed by Diodorus[l]; who also gives an account of this affair of the Eucleia, as one of the first events either of B. C. 394 or of B. C. 393. The Corcyrean Eucleia were probably originally the same with the Corinthian; and if the latter had a stated season, like the winter solstice, the former probably had so too. And that would do much to confirm our conclusion—That Eucleius, the month of these Eucleia, was the last month in the original Type of the calendar, and its site in the natural year was that of the month next before the solstice.

* Compare Hor. Carm. i. iv. 1.

Solvitur acris hiems grata vice veris et Favonî,
Trahuntque siccas MACHINÆ carinas.

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[g] Supra, 438, 439.

[h] Soph. Œdipus Rex, 161. and Scholia: Pausanias, ix. xvii. 1.

[i] Aristides, xx.

[k] iv. iii. 10: iv. iv. 1 sqq.

[l] xiv. 86. (85. Eubulides.)

## SECTION III.—*From the Calendar of Thera.*

The calendar of Thera also admits of being illustrated to a certain extent by another inscription[m]; at least if the learned editor of that monument is right in referring it to the island of Thera.

This inscription is known by the name of the Testamentum Epictetæ: and it records a document of that kind, which consists of two parts, the first containing the will of Epicteta, the second the ratification of it by the people of Thera. The object and effect of both were to procure the payment of the honours of an hero to the husband of the testatrix, deceased, Phœnix, and to two of his sons, Cratesilochus and Andragoras, after the death of both: for which purpose an ἀνδρεῖος, fraternity or sodalitium, was to be founded, composed of the *συγγενεῖς* or next of kin to the parties in question, which should meet at a stated time in a given place, and keep three days as holidays, in memory of these three persons, every year. We shall proceed to quote so much of each of its divisions as may be necessary to illustrate this account of it; accompanying them with such remarks as may be requisite.

i. The date of the will is premised to it[n]: 'Επὶ ῾Εφόρων τῶν σὺν Φοιβοτέλει τάδε διέθετο νοοῦσα καὶ φρονοῦσα 'Επικτήτα Γρίννου: from which it appears that the style of the eponym at Thera was the same as at Sparta; viz. that of ephor: and that these ephors were more than one in number at Thera, as they were at Sparta.

ii. A money-payment was to be made to the ἀνδρεῖος by the daughter of the testatrix in a certain month, every year[o]: 'Απολείπω δὲ τὸ Μουσεῖον . . . . . τᾷ θυγατρί μου, 'Επιτελείᾳ, ὥστε παραλαβοῦσαν αὐτὰν . . . . τελὲν καθ' ἕκαστον ἔτος ἐμ μηνὶ 'Ελευσινίῳ δραχμὰς διακοσίας δέκα τῷ κοινῷ τοῦ ἀνδρείου . . . τῶν συγγενῶν: and this ascertains the name of one of the months—Eleusinius.

iii. The ἀνδρεῖος was to meet every year in this museum, and keep three days of a certain month, the 19th, 20th, and

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[m] Corp. Inscr. 2448. ii. pag. 361–371 Thera. cf. Corsini, F. Att. Pars i. Tom. ii. 453–457. Diss. xiv. 20.

[n] Pag. 361. i. l. 3.

[o] Pag. 362. § ii. 4.

21st; the 19th in honour of the Muses; the 20th and 21st in honour of the heroes Phœnix, Cratesilochus, and Andragoras[p]: Ὁ δὲ ἀνδρεῖος τῶν συγγενῶν συναγέσθω ἐν τῷ Μουσείῳ καθ' ἕκαστον ἔτος ἐμ μηνὶ Δελφινίῳ . . . ἄ(νδ)ρας τρεῖς ἀποδείξας ἐπιμηνίος (ἐπιμηνίους) ἐξ αὐτῶν, καὶ θυέτω τᾷ μὲν ἐννεακαιδεκάτᾳ ταῖς Μούσαις, τᾷ δὲ εἰκάδι τοῖς ἥρωσιν Φοίνικι καὶ Ἐπικτήτᾳ, τᾷ δὲ ἀμφεικάδι Κρατησιλόχῳ καὶ Ἀνδραγόρᾳ[q]: and the name of another month. Delphinius, is hereby ascertained. This preliminary sacrifice to the Muses on the 19th was probably appointed because the college was to meet in the Museum or Temple of the Muses, or because the 19th of the month was sacred to the Muses at Thera, as the 9th was elsewhere[r]; and the sacrifice to the deceased worthies, Phœnix and the other two, on the 20th and the 21st respectively, possibly because the first of them (the father of the other two) died on the 20th of the month. The name of Epicteta associated with his was probably that of the testatrix herself, his wife; and this part of her will must have been intended to take effect after her own death.

iv. With regard to these two months of the calendar for the time being, the first is again alluded to as the stated month of the money-payment prescribed by the will[s]: Εἰ δέ κα μὴ ἀποδῷ Ἐπιτέλεια ἢ οἱ κληρονόμοι αὐτᾶς ἐν τῷ Ἐλευσινίῳ μηνὶ τῷ ἀνδρείῳ τῶν συγγενῶν τὰς διακοσίας δέκα δραχμὰς κ̀ τ. λ: and the second no less plainly as the stated month of the annual meeting in the Museum, in the decree of the people which confirms the will[t]: Ἐπὶ Ἐφόρων τῶν σὺν Ἱμέρτῳ Διοσθύου· Ἐπειδὴ Ἐπικτήτα Γρίννου . . . ἐπιδέδωκε ἐς θυσίαν ταῖς Μούσαις καὶ τοῖς ἥρωσι, καὶ ἐς ἀνδρείου τῶν συγγενῶν συναγωγὰν κ̀, τ. λ.—ὥστε γίνεσθαι τὰν συναγωγὰν ἐπ' ἁμέρας τρεῖς . . . καὶ θύεν τὸν μὲν τὰν πράταν ἐπιμηνιεύοντα ταῖς Μούσαις, τὸν δὲ τὰν δευτέραν τοῖς ἥρωσι Φοίνικι καὶ Ἐπικτήτᾳ, τὸν δὲ τὰν τρίταν τοῖς ἥρωσι Κρατησιλόχῳ καὶ Ἀνδραγόρᾳ· Ἀγαθᾷ τύχᾳ, δεδόχθαι κ̀, τ. λ. τὰν δὲ συναγωγὰν τοῦ ἀνδρείου τῶν συγγενῶν γινέσθαι ἐμ μηνὶ Δελφινίῳ, ἐν τῷ Μουσείῳ, καθ' ἕκαστον ἔτος ἁμέρας τρεῖς κ̀, τ. λ: and the three stated days of the observance are not less clearly recognised in the following ordinance of the decree[v]: Εἰ δὲ κατὰ δωρεὰ(ν) ἐπιμήνιοι μηκέτ' ὦντι, δεξοῦντ(αι)

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[p] Pag. 363. ii. 30.
[q] Cf. 362. i. l. 9–20.
[r] Vol i. p. 267. vii. note.
[s] 363. iii. 2.
[t] 364. iv. 1.
[v] 365. v. 11.

... *ἀνὰ πρεσβύτατα* (by seniority) *πάντες οἱ παραγινόμενοι* ... *παρὰ τοῦ ἀρτυτῆρος δραχμὰς πεντήκοντα πρὸ τοῦ τὰν σύνοδον ἦμεν πρὸ ἁμερᾶν δέκα,* (which would be on the 9th of Delphinius) ... *θυέτω δὲ ὁ τὰν πράταν ἐπιμηνιεύων ἁμέραν*[x] ... *ὁ δὲ τὰν δευτέραν*[y] ... *ὁ δὲ τὰν τρίταν*[z] *κ᾽, τ. λ.* as before.

Laying these different provisions together, we not only ascertain the names of two of the months of the calendar, Eleusinius and Delphinius, but may also very probably infer that Eleusinius preceded Delphinius; because the money, which was to be applied to a certain purpose in Delphinius, was to be paid, with a view to that purpose, in Eleusinius. The name of a third month is ascertained by the date of the decree: *Ἐπὶ Ἐφόρων τῶν σὺν Ἱμέρτῳ Διοσθύου*: and the same name occurs again[zz].

With respect to the order of these three months *inter se,* or to the place in the calendar of the other two, relatively to this third, and *vice versa,* there is reason to conclude that *Διόσθυος* must have been the last month at this time.

For, i. if we compare the date of the will with that of the decree, we see that they were dated in different years: the former in the year of Phœbiteles and his colleagues, the latter in the year of Himertus and his. There could consequently not have been less than one year's interval between the will and the decree; and there might have been more: and it appears, in fact, from a subsequent intimation[a], that the will itself was not to take effect until two years after the death of Andragoras, the other son of the testatrix—who was still living at the date of the will[b]. ii. If we look more narrowly into this decree, we shall see it must have been dated before the tenth of this month. For it provides, among other things, that the *ἀνδρεῖος* should elect an *Ἐπίσσοφος* (something like the Master of a Lodge); and this Master should hold a meeting of his Lodge every year—*Ἐν τᾷ δευτέρᾳ ἁμέρᾳ*[c], the second day of the year; *Αἱρείσθω δὲ τὸ κοινὸν καὶ ἐπίσσοφον· ὁ δὲ αἱρεθεὶς συναγέτω σύλλογον κατ᾽ ἐνιαυτὸν ἐν τᾷ δευτέρᾳ ἁμέρᾳ.* Consequently, he himself must have been elected on the *first* day of the year; or before it. And that the case of the *Ἐπίσσοφος,* first appointed, was not to be any exception to this rule, appears from what follows[d]: Ὅπως δὲ ἐπίσσοφός τε ἀποδειχθῇ καὶ ὁ αἱρεθεὶς ἐγγράφ(η) πάντα, κατὰ τὸν νόμον, συναχθήτω σύλλογος ἐπὶ Ἐφόρων τῶν σὺν Ἱμέρτῳ μηνὸς Διοσθύου δεκάτᾳ, καὶ αἱρεθήτω ἐπίσσοφος· οὗτος δὲ ἐγγραφέτω κ̀, τ. λ.

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[x] 365. v. l. 35.
[y] 366. vi. l. 6.
[z] Ib. l. 13.
[zz] 367. viii. 15–18.
[a] 362. §. i. l. 16.
[b] Cf. 362. § i. l. 16.
[c] 366. § vi. l. 24.

This proves that the decree itself must have been passed between the first and the tenth of *Διόσθυος*: and taken along with the preceding enactment, that the Epissophus of the year was to hold his first meeting on the second day of the year, in our opinion it proves also that Diosthyus was the last month of the year. The first Epissophus himself must have been elected on the tenth of Diosthyus; and his first meeting was to be held on the 2nd day of the new year next ensuing.

Three months of the calendar of Thera, Ἐλευσίνιος, Δελφίνιος, *Διόσθυος*, which probably preceded and followed each other in that order, (though not necessarily immediately,) are thus recoverable from this inscription. Of these, Ἐλευσίνιος, as we hope to see hereafter, occurs also in the calendar of Olus in Crete[e]; but nowhere else, as far as we have yet discovered. Ἐλευσὶς was the name of a locality in Thera, as well as in Attica[f]; but the name of this month was more probably derived from Ἐλευσίνια than from Ἐλευσὶς or Ἐλευσίν. And as so derived, it would designate the month of the mysteries, and consequently that which corresponded to Boëdromion in the Attic. Δελφίνιος, again, as we hope also to shew, was probably derived from one of the titles of Apollo among the Greeks; the origin of which is explained by the fable of the Dolphin, and the foundation of the temple and oracle at Delphi, in the hymn to Apollo, ascribed to Homer[g]. A month so called, as we shall see by and by, occurs in the calendar of Ægina; and in that calendar must have corresponded to the Attic Thargelion. But its site in the Æginetan calendar is no necessary argument of its place in that of Thera; in which, if it followed Eleusinius, and Eleusinius was really so called because it coincided with the season of the Eleusinian mysteries, it must have corresponded to Pyanepsion in the Attic. As to the month *Διόσθυος*, the first

[d] 367. § viii. l. 15.

[e] Cf. Corp. Inscr. 2554. ii. 404.

[f] See Mr. B. p. 369. col. b.

[g] 388–439.

instance of the occurrence of a name like that is supplied by the calendar of Elis; the consideration of which must be postponed to a future opportunity. All we shall say about it at present is, that there is reason to believe it was the name of the last month in the calendar of Elis, as we have concluded this also must have been in that of Thera; and the proper orthography of the name in the calendar of Elis was *Δυόςδυος*, rather than *ΔυόςΘυος*, much less *ΔιόςΘυος*; a name purposely given to the xiith month, because in the intercalary years of the cycle this month was treated as two months in one; as a month of 60 days, which took the place *pro tempore* of one of 30.

With regard to the date of this Inscription, Mr. B. conjectures the second or third century before the Christian æra[g]: Ætas tituli videtur fere secundum vel tertium ante Christum sæculum esse. He adds, however, Nihil inest Romani; an observation, the truth of which (pace viri tanti dixerim) there is reason to call in question. The testatrix, speaking of the death of her surviving son, Andragoras, uses an idiom which is Latin, and not Greek, and could not have got into common use in Greek until long after the first beginning of a stated intercourse between the Romans and the Greeks, which no one could think of dating earlier than the battle of Pydna, B. C. 168[h]: *Μετὰ δὲ δύο ἔτη τοῦ ἀπολελειμμένου ἔτι μοι υἱοῦ ’Ανδραγόρα μεταλλάσσοντος τὸν βίον κ̓, τ. λ.* In our opinion the monument can scarcely have been more than one hundred years older than the vulgar æra.

And that being the case, it would be probable the calendar at this time must have been Metonic, rather than Octaëteric; and though that may be admitted to be an uncertain point, there is a peculiarity in the mode of defining the third of the three days in the month Delphinius, which were to be kept in honour of the three heroes, Phœnix, Cratesilochus, and Andragoras, which, in our opinion, is significant, and points to a Metonic calendar, not to an octaëteric. These three days were the 19th, the 20th, and the 21st. And it is observable that, while the first of them is styled the *ἐννεακαι-*

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[g] P. 369. col. b.

[h] 362. § 1. l. 16. Cf. of this idiom, our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, iii. 52 sqq. Dissertation xxxviii.

*δεκάτη*, and the second the *εἰκὰς*, the third is called by none of its usual styles, the *εἰκοστὴ πρώτη*, the *δεκάτη φθίνοντος*, the *ὑστέρα δεκάτη*, or the like[i], but by the unusual, though not unexampled one[k], of *'Αμφεικάς*—the "about the 20th day." This peculiarity of idiom for the 21st of the month, argues some ambiguity in its proper style, as the *εἰκοστὴ πρώτη*, or the 21st; and that would be possible in the Metonic calendar, but not in the octaëteric. In the octaëteric calendar there was only one day, the style of which *a priori* was liable to be ambiguous; and that was the *δευτέρα φθίνοντος*, or 29th of the month, which in every *other* month in that calendar required to be understood of the 30th. In the Metonic calendar there were many; as many as were liable to be exemptile: and though the 19th or the 20th could never be one of these, the 21st at stated times was liable to be so. In such cases there was no such day as the 21st; the 22nd stept into its place. And hence the substitution of a term for the 21st in the Metonic calendar, which would denote the 22nd, if necessary, as much as the 21st; that is, this term of the *ἀμφεικάς*. It is probable therefore that this particular denomination, for the third of the days in question, was deliberately used in the Will, because it was foreseen that under some circumstances there would be no *εἰκοστὴ πρώτη*: and if it was so, it would be decisive that the calendar of the time was Metonic. Yet even in that case, there would be no reason to doubt that this Metonic calendar must have been the lineal representative of an older octaëteric calendar; reducible under one or other of the Hellenic octaëteric types in general; and very possibly even under the first: though that is a point on which we can assume nothing for certain.

Before we take our leave of this calendar, it is by all means to be observed that another inscription is extant, which makes us acquainted with the names of two more of its months, Artemisius and Hyakinthius[l]: *Οὗροι γᾶς θεῶν ματρί. Θεὸς ἀγαθᾷ τύχᾳ ἀγαθοῦ δαίμονος, θυσία 'Αρχίνου. τῷ ἔτει τῷ πρατίστῳ θύσοντι βοῦν καὶ πυρῶν ἐγ μεδίμνου, καὶ κριθᾶν ἐγ δύο μεδίμνων, καὶ οἴνου μετρήταν, καὶ ἄλλα ἀπάργματα ὧν αἱ ὧραι φέ-*

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[i] See Vol. i. 75.

[k] Cf. Hesychius, 'Αμφεικάς.

[l] Corpus Inscript. 2465 *f*. Tom. ii. Append. 1086. Thera.

*ρουσιν, μηνὸς Ἀρτεμισίου πέμπτᾳ ἱσταμένου, καὶ μηνὸς Ὑακινθίου πέμπτᾳ ἱσταμένου.* We are entirely of opinion, that this is a much more ancient inscription than the other: and forasmuch as its purport is manifestly to record the institution of two sacrifices, attributed to some one called Archinus, consisting of the productions of the year, and as a kind of thanksgiving-offering for the blessings of the year; it is probable that they were appointed to be six months asunder, and to divide the year: and consequently that these two months, Artemisius and Hyakinthius, on the same day of which respectively each was to be offered, stood at opposite points of the calendar; and if one of them was the first, the other was the seventh.

Now this month *Ὑακίνθιος* in the calendar of Thera, it is to be presumed, derived its name from the *Ὑακίνθια*, and therefore in the calendar of Thera answered to *Ἑκατομβεὺς* in the calendar of Sparta: and hence the first confirmation of our conjecture, respecting the site of these two months; for *Ἑκατομβεὺς* was the seventh month in the calendar of Sparta, and therefore *Ὑακίνθιος* must have been the seventh in that of Thera. And as Thera was a colony from Sparta, so was Cyrene a colony from Thera: and therefore if Cyrene had a month Artemisius, and Thera had one also, it is probable each of them occupied the same site in its proper calendar; and if one of them was the first in its proper order, the other was so too. Now though we do not know for certain that the calendar of Cyrene had a month called Artemisius, yet we do from the testimony of Athenæus[w], that it had a festival called Artemisia, the greatest in its year; which was very likely to have given name to the month in which it was celebrated: and we learn also from the same authority that this Artemisian festival at Cyrene, and therefore the month in which it was celebrated, fell out at the beginning of the year.

## Section IV.—*From the Calendar of Tenos.*

A considerable fragment of an inscription, which originally belonged to the small island of Tenos, one of the Kyclades[x], between Andros and Myconus, is likewise extant[y]: and imperfect as this is, in other respects, yet seven at least of the months of the calendar are recoverable from it, even in its present state.

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[w] xii. 73.

[x] Harpocration, Τῆνος, *μία τῶν Κυκλάδων νήσων.*

This inscription appears to have been intended to commemorate a number of purchases, partly of houses, partly of lands, made in the island; each of them discriminated from the rest, not only by other marks of distinction, but also by the eponym of the year, the day of the month, and the like. This eponym at Tenos, as well as at Athens, had the style of archon, and four archons are mentioned in the inscription[z], but whether in successive years is doubtful. Between the first mentioned of these and the next the following dates occur:

| | |
|---|---|
| i. § 15 | Ἀπ(ε)λλαιῶνος . . (τη̣) ἐ(πὶ) δε(κάτη̣. |
| — 22 | . . τ]η̣ Ἡραιῶνος |
| — 28 | . . Ἡραιών ? . . |
| — 35 | Βουφονιῶνος . . . . |
| — 38 | Ἀπατουριῶνος . . . . |
| — 43 | Ποσιδεῶνος πέμπτη̣ διχομη(νία̣. |
| — 45 | (Πο)σιδεῶνος ὀγδόη̣ (εἰκάδ)ι. |
| — 48 | Ἀ(ρτε)μισιῶνος . . . . |
| — 69 | (Ὀγ)δό(η̣) Θαργηλιῶνος. |

If then it could only be assumed that every thing between i § 1 and § 69 belonged to the year of the same archon, seven months, and in the following order, would thus be ascertained: Apellæon, Heræon, Buphonion, Apaturion, Posideon, Artemision, Thargelion. But this cannot be taken for granted without proof.

Under the next mentioned archon[a], and under the next to him[b], though the names of months doubtless were specified, they are lost at present, except a fragment of one, which came somewhere under the third archon:...*ῶν*]*ος* (*πέ*)*μ*(*πτ*)*η̣* (*ἱσ*)*ταμένου*[c]. Under the fourth mentioned archon, Βουφο*νιῶνος*[d] occurs again: and either the same year, or some other, vestiges are discoverable of the name of a month, which Mr. Boëckh restores conjecturally by (Δι]ος(θ)ύου? μ(η)νὸς πέ(μπ)τ(ῃ ἱσ)ταμένου [d].

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[y] Corp. Inscr. 2338. ii. 261–274.

[z] One, v. 1: another, v. 74: a third, v. 103: a fourth, v. 109.

[a] Ver. 74–102.

[b] 103–108.

[c] Ver. 103.

[d] Ver. 109. Ἐπ' ἄρχοντος Ἀμεινόλα μηνὸς Βουφονιῶνος Ἀλκ....

From these premises the learned editor of this part of the collection inferred that the order of the months thus far recovered was this, Apellæon, Heræon, Buphonion, Apaturion, Posideon, Artemision, Thargelion, Diosthyus. Yet this arrangement being founded entirely on the assumption that the first seven all came within the same archontic year; it is manifestly precarious. In our own opinion (though we propose it only as conjectural) the last month in this calendar was Ποσειδεὼν, and the first Ἡραιών. Ἀρτεμισιὼν and Θαργηλιὼν were consecutive, the fourth and the fifth; Βουφονιὼν was the sixth month, Ἀπατουριὼν the tenth, and Ἀπελλαιὼν the eleventh: and we would arrange this Tenian calendar, side by side with the Attic, according to the original state and form of each, as follows:

| *Octaëteric Calendar of Tenos.* | *Octaëteric Calendar of Athens.* |
|---|---|
| i. Ἡραιών. | i. Γαμηλιών. |
| ii. ........ | ii. Ἀνθεστηριών. |
| iii. ........ | iii. Ἐλαφηβολιών. |
| iv. Ἀρτεμισιών. | iv. Μουνυχιών. |
| v. Θαργηλιών. | v. Θαργηλιών. |
| vi. Βουφονιών. | vi. Σκιρροφοριών. |
| vii. ........ | vii. Ἑκατομβαιών. |
| viii. ........ | viii. Μεταγειτνιών. |
| ix. ........ | ix. Βοηδρομιών. |
| x. Ἀπατουριών. | x. Πυανεψιών. |
| xi. Ἀπελλαιών. | xi. Μαιμακτηριών. |
| xii. Ποσειδεών. | xii. Ποσειδεών. |

The name of Ἡραιὼν might have been given to the first month in this calendar for the same reason that Γαμηλιὼν was to the first in the Attic; viz. because it was sacred to marriage, and through that to Ἥρα, the goddess of marriage. We shall see hereafter, that the name of Ἡραῖος was given to the month which corresponded to Γαμηλιὼν, in the Delphian calendar. Artemision and Thargelion in this calendar might be consecutive, because one of them was dedicated to Artemis, and the other to Apollo; and there is no reason why Thargelion in this might not have answered to Thargelion in the Attic, and therefore Artemision in this to Munychion in the Attic. Βουφονιὼν must have derived its name from the Βουφόνια; the traditionary account of which[e] connected it with the origin of animal sacrifice itself. The ἑορτὴ τῶν Βουφονίων had a stated date in the Attic calendar, the 14th of Σκιρροφοριών: and the ἑορτὴ τῆς βουθυσίας is recognised in another Tenian inscription[f], as an occasion at which a distribution of money was made every year to the freemen of Tenos, from the interest of a certain fund, provided by one of their fellow citizens, in whose honour this inscription was intended. We have no doubt therefore that Βουφονιὼν in this calendar corresponded to Σκιρροφοριὼν in the Attic. Ἀπατουριὼν must have derived its name from the characteristic observance of the Ionic tribe among the Greeks, the Ἀπατούρια, of which we hope to give an account hereafter; and therefore probably corresponded to Πυανεψιὼν, the stated month of that ceremony in the Attic calendar. Ἀπελλαιὼν must have been derived from the same etymon as Ἀπελλαῖος, of which we said something on a former occasion, when we were treating of the calendar of Tauromenium[g]. And of the two etymons there proposed, if that of this Tenian month was the first, (that which derived it from the taking up and confinement of the cattle in the folds and stalls, against the beginning of winter,) it must have corresponded to the Attic Mæmacterion. Ποσειδεὼν requires no explanation. If this month came next to Ἀπελλαιὼν, it corresponded to the Attic so called also: and that Ποσειδῶν was likely *a priori* to have a month called after his own name, in the calendar of Tenos in particular, might always have been inferrible from the peculiar honours with which he was worshipped in Tenos[h]. And yet it is just as conceivable that the Tenians should have thought of calling the last month of their primitive solar calendar by his name, simply on the authority of Homer, as the Athenians[i] *.

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[d] Ver. 113.

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[e] Porphyry De Abstinentia, ii. 10. p. 119. cf vol. i. 535 note.

[f] 2336. ii. 260, 261. l. 10 sqq.

[g] Supra, 443.

[h] Cf. Strabo, x. 5. 391 a: Clemens Alex. Protrepticon, ii. § 30. p. 25. l. 33.

The date which occurs in this inscription, Ποσιδεῶνος πέμπτῃ, διχομην(ίᾳ[k], is something remarkable. Mr. B. is of opinion it was intended to denote simply the 15th of the month: the middle day of the second decad. But, on that supposition, πέμπτῃ, without μεσοῦντος, would have been contrary to rule. And if it is answered, that διχομηνίᾳ here supplies the place of μεσοῦντος, in that case πέμπτῃ would have been superfluous; διχομηνίᾳ alone, or Ποσιδεῶνος διχομηνίᾳ, would have denoted the 15th of the month. Or if even this objection should be overruled, still it must be contended that διχομηνίᾳ, as explanatory of πέμπτῃ, would have required the article: Ποσιδεῶνος πέμπτῃ, τῇ διχομηνίᾳ.

It would be contrary however to the analogy of the other dates, which occur in the inscription, and run in the usual style—Ὀγδόῃ Θαργηλιῶνος[l]—Πέμπτῃ ἱσταμένου *bis*[m]—Ἀπελλαιῶνος...τῃ ἐπὶ δεκάτῃ[n]—to suppose a strange and singular mode of expression adopted in this instance for so common an idiom as that of the πέμπτῃ μεσοῦντος. The proper sense of διχομηνία was not a division, but an *unit*, of the month; *one* day, and *one* only; the middle day properly of the *lunar synodic* month, not the lunar calendar month. Every synodic month had such a day; but every calendar one had not. In the full months, the 16th was as much the διχομηνία as the 15th.

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* On the admission of the above arrangement, it will not be necessary to suppose more than three archons between § 15 and 49; the first, § 15–21; the second, § 22–47; the third, § 48, 49. With regard to the month Διόσθυος, conjecturally restored by Mr. B. and placed at the bottom of his list, no such name could have found admission into this Tenian calendar, at least in that form—which offends against the analogy of the rest of these names, all of which like the Attic ended in ών. Ἀπατουριὼν and Ποσειδεὼν occur in the calendar of Kyzicus, and in the Ionic or Asiatic calendar of the Florentine Hemerologium; and the former as preceding the latter. But that is no necessary argument of its seat in the calendar of Tenos. The Ionic Apaturia after a time appear to have differed from the Attic.

[i] See vol. i. 123.

[k] Ver. 43. [l] 69. [m] 103: 113.

[n] Ver. 15. Ποσιδεῶνος ὀγδόῃ occurs ver. 45, which Mr. B. fills up with the addition of εἰκάδι. And that too would be classical (see vol. i. page 75) the εἰκὰς πρώτη, δευτέρα, and so on to the ὀγδόη, or ἐνάτη, being all of actual occurrence for the days of the last decad of the month.

The proper sense of this term then being that of the middle day of the *moon*, the πανσέληνον, or full moon, we are strongly inclined to think it was added to πέμπτῃ in this instance, because the 5th of Posideon at the time was falling on the full of the moon; and that was a coincidence which it was considered worth while to notice in this manner. On this principle, the absence of the article before διχομηνίᾳ is easily explained. For the coincidence being, after all, accidental, and not something of regular occurrence, the *5th of the month, a lunar* 15, was just as natural a mode of expression for it, in the former case, as the 5th of the month, *the* lunar 15th, would have been in the latter.

If however the full moon was falling at this time on the 5th of the month, the calendar must have been Octaëteric, not Metonic; and what is more, could not have been less than from 104 to 112 years old: for if the full moon was falling on the 5th of Posideon, the new moon was falling on the 20th of Apellæon, the month before it; and that could not have begun to be the case in the Octaëteric Cycle under 104–112 years from the epoch * [o].

We conclude then that the calendar of Tenos was octaëteric at the date of this inscription. And as to the further question, of the particular Type of the octaëteris, to which it might have belonged; we have already observed that another Tenian inscription is extant [p], which mentions the ἑορτὴ τῆς βουθυσίας, lately alluded to, and another ceremony called the καταστεφάνωσις; and directly after, a distribution of money among a certain class of individuals, on the 18th of the month [q]: and from the comparison of various other Tenian inscriptions [r], it may be inferred that this ceremony of the

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* The πέμπτῃ ἱσταμένου indeed occurs § 103 and 113, without the same addition of διχομηνίᾳ. But this might have been in a later year; when the same coincidence no longer held good.

[o] See vol. i. 42.

[p] 2336. ii. 260, 261.

[q] l. 15 sqq. This inscription indeed is later than the Roman æra, since the Roman term δηνάριος, instead of the Greek δραχμή—occurs upon it; and that may be some argument of its belonging to the æra of the Solar or Julian Calendar, and not to that of the Lunar.

[r] 2330–2334. cf. 2234 *b*. pag. 1052–1054. l. 60. cf. also 2347. ii. 276–278 of the calendar of Syrus: 2483, 2484. ii. 381, 382 of that of Astypalæa, 3044. ii. 628–631 in that of Teos.

*καταστεφάνωσις* was that of the candidates in the *ἀγὼν τῶν τραγῳδῶν* at the Posidonia and Dionysia: which must consequently have been coincident. And this would be further illustrated by a Rhodian inscription[s], which also appointed the *ἀναγόρευσις* of crowns of this kind in the name of the company there mentioned, the day after one of their stated *σύνοδοι* or meetings. We may conjecture therefore that this *καταστεφάνωσις* of the Tenian inscription was the distribution of prizes, crowns or chaplets, to the successful candidates on such occasions; and the day *after it* being the 18th of the month, the day of the distribution must have been the 17th, and that of the contests or representations, not later than the 16th, and possibly even the 15th.

If then we may assume that the Dionysiac month in this calendar of Tenos was Posideon, and the day of the month the 15th; we may probably infer from those facts that the Type of the calendar was the Fourth. The proportion of epochs B.C. 517 was such that the 15th of the month in that Type was the first of the month in the corresponding year of the Attic Type. Period i. Cycle i. 1. for instance of this Type, the 15th of the first month was Jan. 16, and the 15th of the 12th was Dec. 5: and Period i. Cycle x. 4 of the Attic, the first of Posideon was Dec. 5 also: and that might be the reason why both the Posidonia and the Dionysia at Tenos were fixed to the 15th of the twelfth month, as the first in that month which could have coincided with any day in the Attic Posideon *.

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* The island of Tenos was too insignificant and obscure, to allow us to suppose that in a business of so much novelty, and so contrary to the habits and prejudices of the time, among the Greeks every where, as the first correction of the old solar calendar, this island could have taken the lead among its contemporaries; or have been the first to follow the example of Athens, in adopting the first Type, that of B.C. 592. And it is only consistent with every presumption of the course of things in this respect which could have been formed beforehand, that the Type which it appears to have actually adopted was one of the latest; that of the fourth epoch, B. C. 517. The island of Andros was close to Tenos; and equally small, equally obscure: and it tends not a little to confirm the conclusion, to which we have just come respecting the date of the Tenian correction, that the Andrian in particular seems to have been even later than the Tenian,

[s] 2525 *b*. ii. 392 *d*. sqq.

and to have belonged to the Fifth Type, B. C. 493. We have seen reason at least to come to this conclusion concerning it: but in order to explain these reasons, some preliminary observations are necessary.

We meet with statements in the ancients from which it is to be collected that in certain quarters, and at the time of the Dionysia, the divinity of Dionysos, and the solemnity of the occasion, were both attested by a miraculous phenomenon, in character with the season, and attributed to the direct interposition of Dionysos himself. Thus at Teos, according to Diodorus[1], as a proof that Dionysos was born there: Καὶ Τήϊοι μὲν τεκμήριον φέρουσι τῆς παρ' αὐτοῖς γενέσεως τοῦ θεοῦ, τὸ μέχρι τοῦ νῦν τεταγμένοις χρόνοις ἐν τῇ πόλει πηγὴν αὐτομάτην ἐκ τῆς γῆς οἴνου ῥεῖν εὐωδίᾳ διαφέροντος. These stated times were no doubt those of the Διονύσια. Thus also at Elis: Theopompus apud Athenæum[2]: Καὶ ὅτι τῆς Ἠλείας τόπος ἐστὶν ἀπέχων ὀκτὼ στάδια, ἐν ᾧ οἱ ἐγχώριοι κατακλείοντες τοῖς Διονυσίοις χαλκοῦς λέβητας τρεῖς κενοὺς, παρόντων (τινῶν) ἀποσφραγίζονται, καὶ ὕστερον ἀνοίγοντες εὑρίσκουσιν οἴνου πεπληρωμένους. And more circumstantially Pausanias[3]: Θεῶν δὲ ἐν τοῖς μάλιστα Διόνυσον σέβουσιν Ἠλεῖοι, καὶ τὸν θεόν σφισιν ἐπιφοιτᾷν ἐς τῶν Θυίων τὴν ἑορτὴν λέγουσιν. ἀπέχει μέν γε τῆς πόλεως ὅσον τε ὀκτὼ στάδια, ἔνθα τὴν ἑορτὴν ἄγουσιν, Θυίαν ὀνομάζοντες. λέβητας δὲ ἀριθμὸν τρεῖς ἐς οἴκημα ἐσκομίσαντες οἱ ἱερεῖς κατατίθενται κενοὺς, παρόντων καὶ τῶν πολιτῶν καὶ ξένων, εἰ τύχοιεν ἐπιδημοῦντες· σφραγῖδας δὲ αὐτοί τε οἱ ἱερεῖς, καὶ τῶν ἄλλων ὅσοις ἂν κατὰ γνώμην ᾖ, ταῖς θύραις τοῦ οἰκήματος ἐπιβάλλουσιν. ἐς δὲ τὴν ἐπιοῦσαν τά τε σημεῖα ἐπιγνῶναι πάρεστί σφισι, καὶ ἐσελθόντες ἐς τὸ οἴκημα εὑρίσκουσιν οἴνου πεπλησμένους τοὺς λέβητας. ταῦτα Ἠλείων τε οἱ δοκιμώτατοι ἄνδρες, σὺν αὐτοῖς δὲ καὶ ξένοι κατώμνυντο ἔχειν κατὰ τὰ εἰρημένα· ἐπεὶ αὐτός γε οὐκ εἰς καιρὸν ἀφικόμην τῆς ἑορτῆς. λέγουσι δὲ καὶ Ἄνδριοι παρὰ ἔτος σφίσιν ἐς τοῦ Διονύσου τὴν ἑορτὴν ῥεῖν οἶνον αὐτόματον ἐκ τοῦ ἱεροῦ. The same thing is related also in Aristotle, Περὶ θαυμασίων ἀκουσμάτων[4]: Ἐν Ἤλιδι λέγουσιν εἶναί τι οἴκημα σταδίους ἀπέχον ὀκτὼ μάλιστα τῆς πόλεως, εἰς ὃ τιθέασι τοῖς Διονυσίοις λέβητας χαλκοῦς τρεῖς κενούς. τοῦτο δὲ ποιήσαντες παρακαλοῦσι τῶν Ἑλλήνων τῶν ἐπιδημούντων τὸν βουλόμενον ἐξετάσαι τὰ ἀγγεῖα καὶ τοῦ οἴκου κατασφραγίζεσθαι τὰς θύρας. καὶ ἐπειδὰν μέλλωσιν ἀνοίγειν, ἐπιδείξαντες τοῖς πολίταις καὶ τοῖς ξένοις τὰς σφραγῖδας, οὕτως ἀνοίγουσιν. οἱ δ' εἰσελθόντες εὑρίσκουσι τοὺς μὲν λέβητας οἴνου πλήρεις, τὸ δὲ ἔδαφος καὶ τοὺς τοίχους ὑγιεῖς, ὥστε μηδεμίαν εἶναι ὑποψίαν λαβεῖν ὡς τέχνῃ τινὶ κατασκευάζουσιν.

Now from the last observation in the passage from Pausanias, it appears the Andrians also laid claim to a miracle of this kind, παρὰ ἔτος—(i.e. every other year—) and at the Dionysia: and with respect to this in particular, there are two allusions in Pliny, from which we learn both its date and the time for which it was supposed to last. i. In Andro insula templo Liberi Patris fontem *nonis* Januariis semper vini sapore fluere Mutianus ter consul credit[5]—ii. Mucianus (tradit) Andri fonte Liberi Patris, statis diebus septenis ejus Dei, (the Dionysia or Bacchanalia,) vinum fluere, si auferatur a conspectu templi sapore in aquam transeunte[6]. Mucian was

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[1] iii. 66. [2] i. 61. [3] vi. xxvi. 1. [4] 123. Opp. 842. 25.
[5] H. N. ii. 106. p. 465. [6] H. N. xxxi. 13. 571, 572.

## SECTION V.—*From the testimony of Calendars imperfectly known; but probably older than the Sixth Type.*

i. Calendar of Ægina. Δελφίνιος. Pindar—

> Ἁ Νεμέα μὲν ἄρηρεν,
> μεὶς τ᾽ ἐπιχώριος ὃν φίλησ᾽ Ἀπόλλων[t].

On which the scholiast: Παρ᾽ Αἰγινήταις Δελφίνιος μεὶς ἄγεται, Δελφινίου Ἀπόλλωνος ἱερός. Δελφίνιος, as we have already observed, was one of the oldest titles of Apollo among the Greeks[v]. The scholiast continued: Καὶ εἴη ἂν ὁ μὴν οὗτος, ἐν ᾧ θύουσιν Αἰγινῆται Ἀπόλλωνι οἰκιστῇ καὶ δωματίτῃ, καθά φησι Πυθαίνετος. The context of Pindar implies that this month in the Æginetan calendar corresponded to the Nemean in the Argive calendar; in which case it must have corresponded also to the Attic Thargelion: and consequently in all proba-

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consul iii. U. C. 828, A. D. 75. He must therefore have been cognizant of this fact, and have related it, before A. D. 75. It had a stated date it seems, when he became acquainted with it, Jan. 5 Roman, the nones of January; beginning on that day, and continuing seven days, i. e. till the 11th: so long consequently did the Dionysia at Andros at this time last. From this stated Julian date, Jan. 5 Roman, we may infer that the Andrian calendar in Mucian's time was Julian; and that being the case, the proportion of the Roman to the Julian Kalends, from A. D. 57 to A. D. 75, as our Roman calendar shews[7], was such that Jan. 5 Roman and Jan. 5 Julian all that time were the same; and as Mucian's acquaintance with the fact in question must have been obtained some time in the course of this interval, it follows that the stated date of this phenomenon in the Andrian calendar of the time being, must have been Jan. 5.

And hence the inference to which we alluded supra, that the Andrian calendar probably belonged to the vth Type; epoch Dec. 26, B. C. 493. That was the only type in which the 11th of the month (which seems to have been the most usual Dionysian date) could fall on Jan. 5. In that type, Cycle i. 1, the 11th of the 1st month was Jan. 5: and supposing the proper Dionysian date to have been the 11th of the first month in the *first*, and in every *other*, year of that cycle; it is easy to conceive that this stated date, in the transition of the Lunar into the Julian calendar, might become permanently attached to January 5, before the time of Mucian. A.D. 57–75 —which is all that is necessary to explain the statements in Pliny.

[7] Orig. Kal. Ital. iv. page xc. and xci.

[t] Nemea, v. 81. cf. ad 78 also.

[v] Cf. Plutarch, Theseus, xviii: Pausanias, i. xix. 1: Harpocration, Δελφίνιον: Suidas, Δελφίνιον: Etym. M. Δελφίνιος: Plut. De Sollertia Anim. xxxvi: Strabo, iv. 1. 288 b. De Massilia: ix. 2. 251 b. De Oropo.

bility must have been the fifth month in its own calendar, as Thargelion was in the Attic, and the Nemean month was in the Argive. The scholiast indeed speaks doubtingly on this point: Ἐν ᾧ ἴσως φησὶ γεγενῆσθαι τὰ Νέμεα: and it must be admitted that there was an ἀγὼν ἐπιχώριος, in Ægina itself, called Δελφίνια, and probably celebrated in the month Delphinius, to which this Μεὶς ἐπιχώριος of Pindar might have been intended to refer[x]: Ἐν Αἰγίνῃ δὲ πρὸ τούτων ἐνίκησε τὰ Δελφίνια Ἀπόλλωνος ἀγῶνα ... ἀγῶνα ἱερὸν Ἀπόλλωνος πένταθλον· ἄγεται δὲ ἐν Αἰγίνῃ Δελφίνια Ἀπόλλωνι ... τιμᾶται δὲ σφόδρα ἐν Αἰγίνῃ Ἀπόλλων καὶ Ἄρτεμις. But that notwithstanding, this Æginetan month Δελφίνιος must have corresponded to the Attic Thargelion, may be inferred from another fact; that Δελφίνιος was that in which the Ὑδροφόρια also were celebrated at Ægina[y]: Μεὶς ἐπιχώριος, ὁ Δελφίνιος μὴν καλούμενος, καθ' ὃν τελεῖται Ἀπόλλωνος ἀγὼν Ὑδροφόρια καλούμενος[z]. It appears from Apollonius Rhodius[a] that the Ὑδροφόρια were instituted in the same month in which the Argonautic expedition both began and ended; and that, as we hope to shew on a future occasion, in the calendar used by Apollonius, was the month which corresponded to Thargelion. This is all that is known to us of the calendar of Ægina: but, as Ægina was a colony of the Argives, and some characteristic observances of the Argives (as the Ἡραῖα or Ἑκατόμβαια) were celebrated at Ægina also[b], we have little doubt ourselves that the Æginetan calendar belonged to the same Type as the Argive; that is, the Third, of the epoch of Jan. 7, B. C. 542.

ii. Calendar of Ægosthenia[c] or Ægosthena. Θηλούθιος[d], and Συνείλιος[e] or Συνήλιος. The first of these names has been explained[f]. The second was probably derived from ἡλία, in the sense of ἐκκλησία; which has occurred elsewhere[g], in the form of ἁλία: and, as compounded of σὺν and ἡλία in that sense, probably it denoted the month in which there was the most important assembly of the year—either that of the ἀρχαιρεσίαι, in the last month, or the first of the *new* year, and in the first month of the calendar. The calendar of Megara appears to have belonged to the Third Type, and probably that of Ægosthena did so too.

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[x] Scholia ad Pythia, viii. 88: cf. ad Olympia, xiii. 155. Πελλάνα τε: Nemea, v. 78.

[y] Schol. ad Nem. v. 81.

[z] Cf. the Etym. M. Ἀμφιφορίτης: and Anecdota Gr. Par. iv. 10. 26.

[a] iv. 1766–1772. cf. Apollodorus, Bibl. i. ix. 26.

[b] Cf. Schol. ad Pindar. Pyth. viii. 113.

[c] Cf. Smith's Geography in voce. A town of Megaris.

[d] Muratorius, DXCI. 4. cf. CXL. 4. Θηλύθιος.

[e] Ibid. DXCI. 5.

[f] Supra, 297 sqq.

iii. Calendar of Amphissa (in Locris). Αἰραστυὼν[h]: Πόκιος[i]. The first of these months, in the Inscription, is compared with Καρεῖος, in the contemporary calendar of Chalium, (one of the cities of the Bœotian league.) The name and etymon of this, and its site in the natural year, and relatively to the Attic calendar, we had occasion to consider when treating of the Bœotian calendar[k]. And as we saw reason at that time to conclude that Καρεῖος in the Bœotian corresponded to Θαργηλιὼν in the Attic, it would seem to follow from this fact that Αἰραστυὼν in the calendar of Amphissa must have corresponded to Θαργηλιὼν also. And yet in the other Inscription, which mentions the month Πόκιος, this month at Amphissa is compared with Ἡρακλεῖος at Delphi; and Ἡρακλεῖος at Delphi, as we shall see hereafter, corresponded to Θαργηλιών. On this principle, there must have been two months in the same calendar, (that of Amphissa,) each of which corresponded to the same month in the Attic; and at first sight that would appear to be inconsistent.

But that there is no inconsistency in it, after all, may easily be shewn, if it be only assumed that the proper Type of this calendar of Amphissa was the fifth, like that of the calendar of Phocis and Opus[l], and these two months, Πόκιος and Αἰραστυὼν, were consecutive—and one of them the fifth, the other the sixth. The following schemes will shew that, in the proper cycle of this Type, both the fifth and the sixth months were capable *a priori* of coinciding more or less with the same month in the corresponding years of the Attic cycle, the month Thargelion—as well as with the month Καρεῖος in the Bœotian calendar, and the month Ἡρακλεῖος in the Delphian.

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[g] Supra, ii. 425. Attice ἡλία, whence ἡλιαστής.

[h] Corp. Inscr. 1607. i. 780.

[i] Ibid. 1707. i. 831, 832.

[k] Supra, 292. 310.

[l] See supra, 490. 502.

*Comparison of the* Fifth *and the* Sixth *month in the different years of the cycle of the Fifth Type with the* Fifth *month in those of the cycle of the Third Type, and in those of the cycle of the Second Type, and in those of the cycle of the First Type.*

| vth Type. | | iiird Type. | |
|---|---|---|---|
| 5th Month. | | 5th Month. | |
| i. | April 23. | iii. | April 12. |
| ii. | — 12. | iv. | May 1. |
| iii. | — 1. | v. | April 20. |
| iv. | — 19. | vi. | May 8. |
| v. | — 8. | vii. | April 27. |
| vi. | — 27. | viii. | — 16. |
| vii. | — 16. | i. | May 5. |
| viii. | — 4. | ii. | April 23. |

| vth Type. | | iind Type. | | ist Type. | |
|---|---|---|---|---|---|
| 6th Month. | | Kareius. | | Thargelion. | |
| i. | May 22. | iv. | May 7. | v. | May 2. |
| ii. | — 11. | v. | April 26. | vi. | — 21. |
| iii. | April 30. | vi. | May 15. | vii. | — 10. |
| iv. | May 18. | vii. | — 3. | viii. | April 28. |
| v. | — 7. | viii. | April 22. | i. | May 17. |
| vi. | — 26. | i. | May 11. | ii. | — 6. |
| vii. | — 15. | ii. | April 30. | iii. | April 25. |
| viii. | — 3. | iii. | — 18. | iv. | May 13. |

With regard to the etymons of these months, there can be little doubt that Πόκιος must have been derived from Πόκος, *vellus*, or *fleece;* and therefore that the month so called was that in which it was usual to *shear* the sheep. And hence the confirmation of the place which we have assigned it in its proper calendar, and through that in the natural year. We learn from the Aves of Aristophanes[m], and the scholia on the place, that the arrival of shearing time for the climate of Attica was announced by the appearance of the ἰκτῖνος or milvus, the kite: and the date of that appearance in the calendar of Geminus, according to Eudoxus, was the 17th Ichthyon, March 10; according to Euctemon, the 22nd,

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[m] Ver. 713.

March 15; according to Callippus, the 30th, March 23. And corresponding dates for it appear in the compilation of Ptolemy; according to Eudoxus, Phamenoth 12, Mar. 9; to Dositheus, Phamenoth 13, March 10; to Euctemon, Phamenoth 17, March 14; to Philippus, Phamenoth 21, March 18; to Cæsar, Phamenoth 24, March 21; to Eudoxus again, Phamenoth 25, March 22: all however, and to whomsoever attributed, some time in the month of March. For the climate of Attica then sheep-shearing must have been going on between the middle of March and the middle of April; and for that of Locris (so much colder than that of Attica) it may well be supposed to have been going on a month later, between the middle of April and the middle of May; that is, in this same month Πόκιος—the fifth of their calendar, which would generally fall within the same limits.

With regard to the month *Αἰραστυὼν*—its etymology at first sight is much more obscure. Yet it seems to have been formed directly from *αἰραστύς*; and *αἰραστὺς* would appear to be derivable from *αἰράζω*—and *αἰράζω* to have been purposely formed from some such a substantive as *αἶρα,* the common Greek term for darnel, cockle, tares, or any of the other weeds in general, which are apt to rise up in the midst of the springing corn, and, unless they are extirpated by the hand of the husbandman, to grow up with it, and choke it also. Such weeds were liable to appear every where; and there was a month in the calendars of the North, which took its name from *that* one of its natural characteristics, and was called Wedemonath, or Weed-month, and seems to have immediately preceded the harvest month. We conjecture that this month in the calendar of Amphissa derived its name from the same natural peculiarity; and was called *Αἰραστυὼν,* the Tare-month or Weed-month, on that account. And hence the confirmation of the order we have assigned it, as the sixth month, rather than the fifth: for though these weeds were most abundant, and most luxuriant, in the month before the reaping-month, and there were two harvests every year in Greece, one a month earlier than the other (barley-harvest and wheat-harvest); yet Galen tells us[n], that *αἶραι* were not so liable to spring up in the midst of the barley as in the midst of the wheat: from which we may infer that the name of *Αἰραστυὼν* was more likely to have been given to the month which preceded wheat-harvest than to that which preceded barley-harvest; that is, in any of the Types of the Greek lunar calendar, and especially the Fifth, to the sixth month, which corresponded to the Attic Skirrhophorion, rather than to the fifth, which corresponded to Thargelion.

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[n] Opp. vi. 551. 4 from bott.–552. 12. Περὶ τροφῶν δυν. i. 36.

iv. Calendar of Chalkedon. *Διονύσιος*[o]: a name no doubt derived from that of the Greek *Διόνυσος*. Chalkedon was situated in the territory of the ancient Bithynia; and Dionysius, according to the Florentine Hemerologium, was the name of one of the months of the Bithynian calendar; the stated Julian epoch of which was Dec. 24. But this Bithynian calendar, as we may probably some time or other have an opportunity of shewing, belonged to an altogether different class of calendars from those of the Greeks. Eustathius[p] mentions a fact, after Arrian, which is to be understood, no doubt, of the lunar calendar of Chalkedon; viz. that the *ἐνάτη φθίνοντος* was an *ἡμέρα ἀποφρὰς* in it; a character which it seems to have acquired from the treatment of the people of Chalkedon in the time of Darius Hystaspis, either a little before the Ionian revolt[q], about B. C. 501, or at its close, B. C. 494. The calendar was consequently lunar before B. C. 501–494, at least.

v. Calendar of Cius[r], or Kius, afterwards Prusias, in Bithynia. *Ἀνθεστηριών*[s].

vi. Calendar of Crotona. Athenæus informs us of a custom still kept up at Crotona, which went back as far as the reign of Darius; and commemorated the rescue of Demokedes, as related by Herodotus[t], from the Persians, who accompanied him[v]: *Ἐξ οὗ δὴ Περσικὴν ἔχων στολὴν* (the serjeant or apparitor of the Prytanis at Crotona) *περιέρχεται ταῖς ἑβδόμαις τοὺς*

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[o] Corp. Inscr. 3794. ii. 972–974.

[p] Ad Dionys. Perieg. 803.

[q] Cf. Herod. iv. 144: v. 26: vi. 32, 33.

[r] See Smith's Geography, in Cius.

[s] Corp. Inscr. 3723. ii. 948.

[t] iii. 135–137.

[v] xii. 22.

*βωμοὺς μετὰ τοῦ πρυτάνεως· οὐ τρυφῆς χάριν οὐδ' ὕβρεως, ἀλλ' ἐπηρείας τῆς εἰς τοὺς Πέρσας, τοῦτο πράσσοντες.* These *ἕβδομαι* are no doubt intended of the seventh of the lunar month; which in the lunar calendar of the time was every where sacred to Apollo. The calendar of Crotona was consequently lunar before this period in the reign of Darius.

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vii. The calendar of Crete. We reserve the account of this calendar for a future opportunity; and at present notice only the name of *'Αρταμίτιος*, which occurs[x] as that of one of the months of the calendar of a colony of Arcadians, settled in Crete, and called *'Αρκαδία*[y]. The Arcadian calendar, as we have already explained, belonged to the vth Type.

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viii. Calendar of Cuma in Æolis. *Φράτριος. Μηνὸς Φρατρίω δεκάτᾳ ἀπιόντος*[z]. Date of an inscription at Cuma in Æolis, of the age of Augustus Cæsar, and between the date of his assumption of the title of Pontifex Maximus, U. C. 752, B. C. 12[a], and that of his death, U. C. 767, A. D. 14. The name was no doubt derived from *Φρατρία*; and probably it meant the same thing in this calendar as that of *'Απατουριὼν*, alluded to supra[b], in the calendar of Kyzicus; the month of a ceremony at Cuma analogous to the Apaturia elsewhere; and therefore probably the tenth in the original type of the calendar.

Strabo has mentioned a month peculiar to the calendar of the Æolians in Asia, (and therefore implying that they had a common calendar,) which he calls *Πορνοπιών*[c]: *Παρ' Αἰολεῦσι δὲ τοῖς ἐν 'Ασίᾳ μείς τις καλεῖται Πορνοπιὼν, οὕτω τοὺς πάρνοπας καλούντων Βοιωτῶν, καὶ θυσία συντελεῖται Πορνοπίῳ 'Απόλλωνι.* These *πόρνοπες* were a species of locusts: the Attic name for which was *πάρνοπες*[d].

*Ὅσον τὸ χρῆμα παρνόπων προσέρχεται*[e]—

*Εἶδος δὲ ἀκρίδων οἱ πάρνοπες. εἰσὶ δὲ οὗτοι ἀττέλαβοι, 'Αττικοὶ*

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[x] Corp. Inscr. 3052. ii. 639.

[y] Steph. Byz. in *'Αρκάδες*: cf. Seneca, v. 166. Natur. Quæst. iii. xi. 4: Pliny, H. N. xxxi. 30: also Smith's Geography, in Arcadia.

[z] Corp. Inscr. 3524. ii. 848.

[a] Cf. our Origines Kalendariæ Italicæ, ii. 127, 128. No. xii. xiv. and xvi.

[b] Page 678. note.

[c] xiii. i. 131 b. cf. Alexander ab Alexandro, Geniales dies, i. 13. p. 106, who has mistaken the sense of this allusion.

[d] Mœris, in voce.

[e] Aristoph. Acharn. 150.

*πάρνοπες*[f]. There was a brazen statue of Apollo Parnopius at Athens also, the work of Phidias; so called from the destruction of these insects on some occasion or other[g]: *Παρνόπιον δὲ καλοῦσιν, ὅτι σφισὶ παρνόπων βλαπτόντων τὴν γῆν ἀποστρέψειν ὁ θεὸς εἶπεν ἐκ τῆς χώρας· καὶ ὅτι μὲν ἀπέστρεψεν ἴσασι, τρόπῳ δὲ οὐ λέγουσι ποίῳ.* Pausanias adds, of his own experience of such visitations: *Τρὶς δὲ αὐτὸς ἤδη πάρνοπας ἐκ Σιπύλου τοῦ ὄρους οὐ κατὰ ταὐτὰ οἶδα φθαρέντας· ἀλλὰ τοὺς μὲν ἐξέωσε βίαιος ἐμπεσὼν ἄνεμος, τοὺς δὲ ὕσαντος τοῦ θεοῦ καῦμα ἰσχυρὸν καθεῖλεν ἐπιλαβὸν, οἱ δὲ αἰφνιδίῳ ῥίγει καταληφθέντες ἀπώλοντο. τοιαῦτα μὲν αὐτοῖς συμβάντα οἶδα*[*]. Among the people of Œta in Thessaly these *πάρνοπες* were called *κόρνοπες*; and Hercules was honoured for the same reason, under the title of *Κορνοπιών*: *Καὶ γὰρ ἀπὸ τῶν παρνόπων, οὓς οἱ Οἰταῖοι κόρνοπας λέγουσι, Κορνοπίωνα τιμᾶσθαι παρ' ἐκείνοις Ἡρακλέα, ἀπαλλαγῆς ἀκρίδων χάριν*[h].

We may infer therefore that this Æolian month was one of those of the spring quarter; and answered probably to Munychion or Thargelion: Aristotle, De Locustis[i]: *Τίκτουσι δὲ λήγοντος τοῦ θέρους, καὶ τεκοῦσαι ἀποθνήσκουσιν ... διαμένει δὲ τὰ ᾠὰ τὸν χειμῶνα, ... ἅμα δὲ τῷ θέρει* (in Thargelion) *γίνονται ἐκ τῶν περυσινῶν κυημάτων ἀκρίδες—Ὑπὸ δὲ τὴν ἐαρινὴν ἰσημερίαν, ὅτε λίβες παρ' αὐτοῖς* (the Acridophagi) *καὶ ζέφυροι πνέουσι, παμμεγεθῶν ἀκρίδων πλῆθος ἀμύθητον ἐκ τῆς ἀνιστορήτου μετὰ τῶν ἀνέμων παραγίνεται χώρας*[k].

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ix. Calendars of Eubœa. i. Calendar of Carystus: *Ποσειδεών*[l]. That Posidon or Neptune was worshipped with distinguished marks of respect, in Eubœa, especially at Geræstus, where the Γεραίστια were celebrated in honour of him by all the Eubœans, appears from various testimonies of antiquity[m]. ii. Calendar of Eretria[n]: The 26th of the month Ἱππιὼν of this calendar, (the πέμπτη ἀπιόντος,) is compared with the date of the Πλυντήρια at Paros; which in the Attic calendar, and probably in the Parian of this time, was Thargelion 25. On this supposition, the Eretrian calendar was one day behind the Parian, or the Attic; the first of Thargelion by the latter falling on the 2nd of Hippion by the former. And on the same supposition, Ἱππιὼν must have been the fifth month in the original type of this calendar, as Thargelion was in the Attic. Yet the difference of a day between them in this instance may have been only apparent, if both were Metonic, and the exemptile day came after the 25th of Thargelion, but before the 26th of Ἱππιών.

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[*] Cf. what Zosimus relates, i. 52. (Oxon. 1679,) of Apollo, surnamed Sarpedonius, and his temple at Seleucia in Cilicia; and the birds called Seleukides: also Galen, Opp. viii. 397. 3. *Περὶ τῶν πεπονθ. τόπων*, vi. 3: Suidas, *Σελευκίς*: Ambrose, i. 110, 111. Hexaëm. v. xxiii. § 83: Basil, Hexaëm. viii. 7. A. B. (tom. i. 78.)

[f] Schol. in loc. cf. Hesychius, *Πάρνοπες*, *Κορνώπιδες*: Harpocration, in *Ἀπρότων*: Phot. Lex. *Πάρνοπες*: *Σῦκον ἐφ' Ἑρμῇ*.

[g] Pausanias, i. xxiv. 8.

[h] Strabo, xiii. 1. 131 b: cf. Eustathius, ad Iliad. A. 39. 34, 26.

[i] Anim. Hist. v. 28. pag. 146. 19. Cf. our Origines Kal. Italicæ, iii. 145. note.

[k] Phot. Cod. 250. 453. 34 a: Agatharchides, De Rubro Mari.

[l] Corp. Ins. 2152 *b*. ii. 1018. § 6. 4. It is not indeed certain whether the month, part of the name of which is still read on this marble, viz. ΙΔΕΩΝ (*Ποσειδεῶνος*), was a month so called in the calendar of Carystus, or in some other; as the marble itself appears to have recorded a decree which, though

The name of this month appears to have been derived from ἵππος: but why, and as the name of a month corresponding to Thargelion, must be very uncertain. We have met with Ἱπποδρόμιος in the Bœotian and Thessalian calendars[o], so called in the latter, as we have concluded, from certain games: and the same might have been the case with this name of Ἱππιών.

x. Calendar of Halicarnassus, Ἡρακλεῖος[r]: Ἀνθεστηριών[s]. The twelfth of the former month was appointed by the decree in question to be the date of a public sacrifice to Artemis Pergæa: and that may be some argument that Ἡρακλεῖος in this calendar, as well as in the Delphian, answered to Θαργηλιών.

xi. Calendar of Iasus (or Iassus) in Caria: Ἀφροδισιών[t]: Ἐλαφηβολιών[v]: Σκιροφοριών[x]: the two latter, Attic names; the first, derived no doubt from Ἀφροδίτη, and the first in-

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passed in honour of certain Carystians, was passed some where else: viz. at Alexandria, which Mr. B. thinks was Alexandria Troas.

[m] Pindar, Ol. xiii. 159. and the Scholia: Strabo, x. 322 b: Steph. Byz. Γεραιστός: Etym. M. Γεραιστὸς, and Γέραστος: Schol. ad Equites, 558: Ad Odyss. Γ. 178. 177.

[n] Corp. Ins. 2265. ii. 219.

[o] Supra, 289. 311, 312. 481.

[r] Corp. Insc. 2656. ii. 453.

[s] Jos. Ant. Jud. xiv. x. 23.

[t] Corp. Ins. 2673 *b.* ii. 462: 2674. ii. 463.

[v] 2675 *b.* ii. 463: 2677 *b.* ii. 464.

[x] 2679 *a.* ii. 465.

stance of a name so derived, which we have as yet met with. Ἀφροδίσιος occurs, as we shall perhaps see hereafter, under peculiar circumstances, in the Cyprian calendar.

xii. Calendar of Keos: Calendar of Julia, or Julis[y]: Μαιμακτηριών[z]: an Attic name, and probably for the same month *.

xiii. Calendar of Lampsacus: Βαδρομιών: Ληναιών: Λευκαθιών: Ἀρτεμισιών: all these occur in one inscription[a]; the subject of which was the foundation of a festival in honour of Æsculapius, to be kept in Lenæon and Leucathion: which ascertains these months to have been consecutive ones, and Lenæon as the first of the two.

The same inscription shews that the third assembly of the year was to be held in Βαδρομιών: and if these assemblies were held only once a month (which would be most probable

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* Hesychius, Ἐν Κέῳ τίς ἡμέρα; παροιμία ἐπὶ τῶν οὐκ εὐγνώτων. οὐδεὶς γὰρ οἶδεν ἐν Κέῳ τὶς ἡμέρα· ὅτι οὐχ ἑστᾶσιν αἱ ἡμέραι, ἀλλ' ὡς ἕκαστοι θέλουσιν ἄγουσιν. ὅθεν λέγεται· Σεαυτῷ νουμηνίαν κηρύσσεις. Cf. the Parœmiographi Græci, e Cod. Bodl. 365.

It is difficult to see what could have been the foundation of this saying; whether its origin went back to the time when the calendar of Keos was cyclical, or whether the *νουμηνίαι* in this calendar were allowed to follow the moon, and consequently to change their style in the calendar itself as often as they changed their place. In this case the calendar must have been octaëteric. But even on that principle, the style must have been stationary for eight years at a time at least. We are much inclined to suspect that the true explanation of this description of things at Keos is, that their calendar was once regulated by the Apis cycle, in which the lunar reckoning, in terms of the solar, could not be the same for any two months in succession. See the anecdote which Athenæus, viii. 41, relates of Stratonicus, at Abdera; which seems to imply that the same rule of the lunar reckoning prevailed there too.

The name of Μαιμακτηριὼν, which appears in the above inscription, could not have entered the Julian calendar, if the same with the Kean in general, while that was cyclical in this sense. But Mr. B. is of opinion it came into the island along with a colony of Attic settlers. If so, together, no doubt, with the rest of the Attic months.

[y] Steph. Byz. Ἰουλίς. Geogr. Min. i. Skylax, 22. Dikæarchus, De Statu Græciæ, ibid. ii. pag. 28. ver. 25. See Smith's Geography.

[z] Corp. Ins. 2360. ii. 287.

[a] Corp. Ins. ii. 1130 sqq. Addenda, &c. 3641 *b*.

at Lampsacus) would prove Badromion to have been the third month in the year at this time.

The calendar of Lampsacus, as we saw on a former occasion[b], was still regulated by the octaëteric cycle up to the beginning of the reign of Alexander the Great; but at this time it was probably Metonic. We should be of opinion that it belonged originally to the first or the third Type, and did not pass into the Metonic form before B. C. 272, or 222: and that whensoever it did so, the head of the calendar was transposed to the summer solstice, and Badromion, which before was the ninth month, became the third.

The name of *Λευκαθιὼν*, in the third of these instances, appears to be the same as that of *Λευκοθεών*; a name derivable from *Λευκοθέα*, the Ino of the Greeks, and the Mater Matuta of the Romans: and perhaps the name on the inscription should be *Λευκοθεών.* If that conjecture is well founded, it may direct us to the site of this month in the Julian calendar; which, on this supposition, would be that of the winter Isthmia, celebrated, as we hope to see hereafter, on a stated day in March: between which too, and the Æsculapia, as we hope to see hereafter, according to the Scholiast on Pindar, there was an interval of only nine days. Leucotheon, corresponding to the Isthmia of winter, would correspond to the Attic Elaphebolion, and be the third month originally, in its proper calendar; and therefore Lenæon, immediately before it, would be the second, and correspond to Anthesterion.

The decree above alluded to enacted also, that at the feast of Æsculapius in question, the boys at school, and the domestic servants (or slaves), should have an holiday; and that reminds us of a fact which Diogenes Laertius records of Anaxagoras, at the time of his death, which happened at Lampsacus too[c]: *Ὅτε καὶ τῶν ἀρχόντων τῆς πόλεως ἀξιούντων τί βούλεται αὐτῷ γενέσθαι; φάναι, Τοὺς παῖδας ἐν ᾧ ἂν ἀποθάνῃ μηνὶ κατὰ ἔτος παίζειν συγχωρεῖν· καὶ φυλάττεται τὸ ἔθος καὶ νῦν.* He died, according to Apollodorus[d], Ol. 88. 1. B. C. 428—427: and as Eusebius, in Chronico, and Jerome[e], relate, in the midst of a solar eclipse, which was probably the eclipse of May 22, B. C. 427, a remarkable one of its kind, and total, according to Pingré, for the latitude of Lampsacus.

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[b] Vol. i. 56.

[c] ii. iii. § x. 14.

[d] Ibid. ii. iii. § iii. 7.

[e] Chron Arm. Lat. ii. 24. Ad Ann. 1554. Ol. 79. 3. Thes. Temp. Ol. 79. 4.

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xiv. Calendar of Lesbos: Calendar of Mytilene, Θελαίσιος[s]: Calendar of Eresus[s], Δα... The former of these occurs in this inscription, compared with the name of a month in the calendar of Eresus, of which only the first two letters are entire, ΔΑ... Θελαίσιος, as we have seen[t], is probably the same as Θειλαίθιος: and the Eresian month, compared with it, may have been Δάλιος, which has occurred in the calendar of Tauromenium, and will occur also in that of Rhodes: and of these Θελαίσιος may have been the sixth in its proper calendar, corresponding to the Attic Skirrhophorion, and Δάλιος might have been the fourth in its own too, and yet, in almost any year of its proper cycle, have corresponded more or less to Θελαίθιος, in that of the Mytilenian.

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xv. Calendar of Naples: Πανθεών[v]: Ληναιών[x]. Both these inscriptions belong to the Roman æra. We collect from the terms of the first that Πανθεὼν was probably the first month in the calendar at the time. As to its name, it was probably so called because of some ceremony in honour of all the gods which took place in it; just, as in the calendar of Thessaly, the first month, for a similar reason, was called Θύμιος; i. e. from some sacrifice to all the gods on one common altar, or from twelve sacrifices on twelve altars all at once, in that month. The latter inscription belongs to the year of Domitian's first consulate, U.C. 824, A.D. 71. And it may be inferred from it that the site of the month Lenæon in its proper calendar at this time must have been somewhere between March 1 and July 1, in the Julian; and probably it agreed most nearly with the Julian April, in which the Roman Πιθοίγια, or Veneralia, were wont to be celebrated[y]. The wine of the last year, at Naples, was probably broached in this month, and hence its name[z].

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[s] Corp. Ins. ii. 1037, 1038. Addenda, 2265 *b*.

[t] Supra, page 305.

[v] Corp. Ins. 5785. iii. 719.

[x] Ibid. 5838. iii. 747.

[y] Cf. our Origines Kal. Italicæ, i. 292 sqq. Art. iii.

[z] Cf. supra, 287. also i. 254, 255.

xvi. Calendar of Naupactus: *Διονύσιος*[z]. Cf. supra, the Ætolian calendar[a]. That the Dionysia in honour of Dionysos were celebrated at Naupactus, we learn from the Scholia on Aristophanes[b].

xvii. Calendar of Olbia, or Olbiopolis, on the Borysthenes, in the Pontus[c]: *Ἀνθεστηριών*[d]: Καλαμαιών[e]: Βοηδρομιών[f]. The names in this calendar appear to have been cast in the Attic or Ionic mould, which may be explained perhaps by the circumstance that Olbia was a Milesian colony. From the third of these inscriptions, it appears that Βοηδρομιὼν could not have been the last month in the calendar, though it might have been the first, or any between the first and the last.

*Καλαμαιὼν* occurs only here and in the calendar of Kyzicus, though Mr. B. has restored it conjecturally in an Ephesian inscription[g]. We reserve the explanation of its etymon for the Ionic calendar. It seems to have been intended to denote the gleaning, or the stubble, month, the month next after reaping; and therefore, in all probability, for the climate of the Pontus, it was the eighth month, answering to the Attic Metageitnion.

xvii. Calendar of Paros: *Ἀνθεστηριών*[h]. At the date of the Parian Marble (Diognetus, B. C. 264) there seems to have been no difference between the Parian calendar and the Athenian. Perhaps there was none from the first. The inscription which records this one name is considered by Mr. B. one of the age of Demosthenes, or Alexander the Great.

xviii. Calendar of Tenedos. This calendar was lunar in the time of Pindar.

*Παῖ Ῥέας, ἅ τε πρυτανεῖα λέλογχας, Ἑστία, κ᾽, τ. λ.*
*εὖ μὲν Ἀρισταγόραν δέξαι τεὸν ἐς θάλαμον*[i],
*κ᾽, τ. λ.*—

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[z] Corp. Ins. 1756. i. 856.

[a] Page 520.

[b] Ad Acharn. 194.

[c] Cf. Herod. iv. 18. 17: Pliny, iv. 26. 146: Geogr. Min. i. Arrian, Periplus Ponti Euxini, 20: ii. 46. Skymni Fragm. v. 57: Steph. Byz. Βορυσθένης: Ὀλβία. Pomponius Mela, ii. 1. p. 36: Strabo, vii. 3. 89 b. Κτίσμα Μιλησίων. Cf. Smith's Geography.

[d] Corp. Ins. 2083 *b*. ii. p. 1000.

[e] 2082. ii. 139.

[f] 2059. ii. 126–129.

[g] 2953. ii. 598. 10. (596–599.)

[h] Corp. Ins. 2374 *b*. ii. 1072.

[i] Nemea, xi. 1.

'Αλλὰ σὺν δόξᾳ τέλος
δωδεκάμηνον περά-
σαι σὺν ἀτρώτῳ κραδίᾳ [k].

The neighbouring calendar of Lemnos, as we shall perhaps see hereafter, appears to have belonged to the Third Type.

xix. Calendar of Trœzen: Γεραίστιος.—Καὶ ἐν Τροιζῆνι δὲ, ἐν μηνὶ Γεραιστίῳ. πανήγυρις δὲ τότε γίνεται πολυήμερος, ἧς ἐν μιᾷ οἱ δοῦλοι μετὰ τῶν πολιτῶν κοινῇ τε ἀστραγαλίζουσι, καὶ οἱ κύριοι τοὺς δούλους ἑστιῶσιν, ὡς ὁ αὐτός φησι Καρύστιος [l]. Plutarch recognises a festival in honour of Posidon, as going on at Tænarum, while his Septem Sapientum convivium is supposed to have been going on also, for three days at least [m]; the last of which coincided with the πανσέληνον, or full of the moon [m]. But whether this was in the Trœzenian month of Γεραίστιος, or in some other, is a question which we reserve for future consideration.

xx. Calendar of Astypalæa. Ληναιοβάκχιος [n]. A month, in this calendar, probably corresponding to Ληναιὼν in the Ionic in general—and to Gamelion or Anthesterion in the Attic: the Dionysia, in the sense of the scenic exhibitions, being celebrated in it at Astypalæa.

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[k] Nemea, xi. 10.

[l] Athenæus, xiv. 44.

[m] Cap. xvii. xviii. i. 373.

[n] Corp. Ins. ii. 382. No. 2484.

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